


55146/B

22368

Handwritten notes in the bottom left corner, including the word "Bent" and some illegible scribbles.

6/3



Digitized by the Internet Archive
in 2019 with funding from
Wellcome Library

<https://archive.org/details/b30516043>

THE
State of Physick:
AND OF
DISEASES;

WITH AN
Inquiry into the CAUSES of the late
INCREASE of them: But more
particularly of the

SMALL-POX.

With some Considerations upon the new
Practice of Purgeing in that Disease.

To the whole is premited,
An IDEA of the Nature and
Mechanism of Man: of the Dis-
orders to which it is obnoxious:
and of the Method of Rectifying
them.

*Homines autem Hominum Causâ generati sunt, ut
ipsi inter se aliis alii prodesse possent. M. T.
Cic. de Off. l. 1.*


By JOHN WOODWARD, M.D.
Professor of Physick in Gresham College, Fel-
low of the College of Physicians, and of the
Royal Society.

L O N D O N:
Printed for T. Horne, at the South-En-
trance of the Royal Exchange, and R.
Wilkin, at the King's Head, in S. Paul's
Church-Yard. 1718.





PREFACE.

 *H E Y* only, who are conversant with the Sick, and with Diseases, have Opportunity of finding out and of supplying the Defects that there are in the Art of Physick. Not that every one, who has such Opportunity, is immediately capable of makeing that Use of it. To that, besides a Mind greatly extended, and deep Judgment, a thorough Knowledge of exteriour Nature, and of the Body of Man, is requisite. But, with all this, they who attend the Sick with the Faithfullness and the Care that an Affair of so high Moment requires, will have their Thoughts, and Time, too fully imploy'd to have Leisure to write, or transmitt to others the Notices they gain, and the Remarks they make. Unless they devote themselves so wholly to it as to neglect their own private Affairs : deny themselves all the Pleasures of Life : or place their sole Pleasure in Philosophy,

A

in

P R E F A C E.

in Humanity and Beneficence to the rest of Mankind. All which duely weigh'd, no one can well be surpriz'd that there is not yet made a greater Progress in Physick than we see at this Day.

Besides, when, in this, or any other Science, with great Study, and perhaps the utmost Difficulty, an important Truth is brought to light, it meets ordinarily with but faint Reception. There are not Many that are not byass'd: or that have not taken up their Opinions, generally without over narrow Scrutiny, or close Examination. Nor is any Thing so hardly practicable to weak Minds as to dispossess themselves of those: or exchange them for others, how great Evidence and Certainty soever these may carry along with them. Nay, in an Age wherein many set up for Judges, Nothing will be allowed that happens not to have their Sanction; especially if they have wrote themselves: and above all, if their Notions, when brought to it, will not abide the Test of Nature. None ordinarily are so clamorous, or so vehement in their Opposition, as these. Nor hath Science found, in all Ages, and in every Country, Patrons and Protectors so thick and numerous as it claims, and justly merits.

Under these so great Discouragements it cannot well be any Surprise that some should,
instead

PREFACE.

instead of real Philosophy, give themselves up wholly to Fiction and Invention; while others consult their Ease and Quiet, and pursue their Pleasures; choosing rather to spare their Labour, their Time, and their Fortunes, than venture all in a Bottom so hazardous, and steer a Course wherein they are certain to meet with such Storms and Distress. Nor are there many of so Stoical a Temper and Genius as easily and rightly to comport with Censure, Cavil, and Misrepresentation, from those whose real Happyness they are all the while promoting, sincerely, and with the highest Zeal and Application. Not but that some such there certainly are: and a Mind truly great, fill'd with the Love of Vertue, and of Good, is vastly superior to all those Obstacles. Then the Pleasure, that attends the Pursuit and Discovery of usefull Truth, is greater than can ever be imagin'd by those who have not felt it. And this, with the Acknowledgements and the Approbation that it will not fail to meet with from the Wise and the Honest Part of the World, is much an Over-Balance to all the Toils and Perplexities that are sure to happen in the Way.

As to the Work now before me, it will, I hope, speak for it self more clearly than to need any Explication here. This I can

P R E F A C E.

very truly say, how mean so ever my own Abilities may be, I have done my utmost to supply their Defect by my so much greater Diligence and Care; haveing conducted my self wholly by Observations, kept close to Nature, and founded what I advance intirely on Reflections upon the Mechanism of the Body of Man. But this will more largely appear when I shall come to set forth those Observations themselves, along with the Cases and Historyes of several that have pass'd my Care, in the Small-Pox, and most other Diseases: as also several Dissections and Anatomical Administrations; all which are in Readyness, and shall be publish'd as fast as my other Affairs will give Leave.

That, for several Tears past, I have changed some of the Medicines that are in great Vogue, and particularly Steel, for Others, was because I had Reason to think these more natural: and not out of any Affectation of Singularity, or Study of Innovation. Motives so very slight could have little Effect where I so well foresaw this Change, interfering; not only with establish'd Notions, but with some very considerable Interests, must give great Offense, and create me some Difficulties. The Thing fell out as I expected: and those, who are not vers'd in such Affairs, will not be easily brought

P R E F A C E.

brought to believe what Pains have been taken, and what Arts us'd, to possess the World to the Prejudice of what I was proposing to bring into Practise without any other View than merely the Relief of the Sick and Afflicted. Had there, along with that Opposition, appear'd something of Argument, and of Reasoning: or some Instances of Error, and want of Success, in what I attempted, this would not have fail'd to have had its full Weight with me. The Case truly was, I could not, either with any Honour, or Satisfaction to my own Mind, go on with the giveing of Medicines that, as my Reason, and Consideration of their Nature, from the Beginning, prompted me to suspect, my Experience, afterwards, and all the Tryals that I observed made by others, confirm'd, were of little if any good Use, and generally offensive and injurious.

Nor will it be thought strange that, in the Course of my Practise, for some Years, I have made so great and frequent Use of Oyls, and Unctuous Remedyes, when it shall be evinced, as I hope it is sufficiently in the following Papers, that they happily answer several great Ends and Exigencies of Nature: and are of Constitution directly contrary to the main Principle and Cause of Diseases.

The Reasons, and Inducements to so much

P R E F A C E.

as is enter'd upon here, are too strong to suffer any One to judge me easily drawn into Controversy. Not that those of Dr. Freind, and the Gentlemen that have joyn'd him, in the Commentaries that he has set forth on Hippocrates's first and third Book of Popular Diseases, are the only Methods that I have had Reason to call in Question. I am well aware what a Force and Power I incounter. But I have a firm and great Relyance upon the Goodness of my Cause : and am forward to persuade my self All will readily allow my Views in this Undertaking are equally good, and center wholly in the Benefit of others. Private Design, or Interest of my own, must have been carryed on in a very different Way; in which a too general and long Experience hath shewn there would be both great Security, and Advantage. For the Gentlemen I here differ with, they will have less Cause to suspect my Candor when they are made sensible how many more Instances I have, yet reserved, in Objection to what they have now publish'd : and besides, I have purposely declin'd Produceing here any of their other Practise ; confineing my self, for the Present, wholly to what they have deliver'd in those Commentaries.

What is here offer'd, being levell'd against the Disempers and Calamities of England, could not so fitly be set forth in any other Language
as

P R E F A C E.

as English. Nor can any thing be more improper than to render abstruse, and a Mystery to the Body of the Nation, what is of so common and indeed universal Concern. Thus likewise I, some Time ago, set forth my Essay toward a Natural History of the Earth, in English. 'Tis true a very learned Gentleman † abroad haveing printed some Objections, against that Treatise, in Latin, I was obliged to return an Answer in the same Language. Which yet I will take Care, at my first Leisure, shall be made English; the rather because, in this Discourse, I have supply'd the main Defects and Omissions of that Essay. I the more readily took the Opportunity to do that briefly there, for the Use of the few that are curious and Judges, because this Age gives so little Incouragement to Studies of that Kind that no One can well wonder that I have not yet ventured to set forth any Thing more at large upon that Subject.

The following Papers, together with Remarks upon some of the other Heads treated of by Dr. Freind in his Commentaries, have lain by, now, some Time; being drawn up in the Winter of the Year 1716, soon after those Commentaries came out. I am obli-

† D. El. Camerarius Med. Prof. Tubing. in Dissertationib. Taurinens. Tubingæ editis. 8^o, 1712.

P R E F A C E.

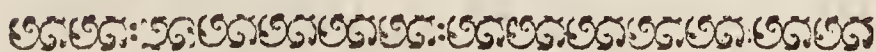
ged to take Notice of this, because the Calculations *, relating to the Increase of Diseases, were brought down no farther than that Time. Some Additions there have indeed been made since ; but very few. I deferr'd publishing these Papers, thus long, partly that I might get the Judgement of the more eminent of the Professors abroad, as well as of some very learned Men here, concerning them; which I have done: and partly in Hopes of Leisure and Opportunity of first Finishing, and Fitting for the Press, what I have collected, from Observations, and Experiments, relating to the Animal Œconomy. That would have given much Light, and contributed greatly to the Confirmation of what is here deliver'd. But, since I now finally see I cannot be so fortunate: and my Affairs will not permitt That, I must deferr it: and shall, in some Measure to supply that Defect, premise a brief Idea of the more considerable Action and Operation in the Animal Œconomy: the Discomposure of it under Diseases: and its Re-establishment by the Art of Physick; such an Idea being needfull, at least to common Readers, before they enter upon this Discourse.

* P. 189. & Scqq. infra.



A N
I D E A
O F T H E

Nature of Man : of the Disorders to which it is obnoxious : and the Method of Rectifying them.



Of the Body of Man in Health.



THE first Scenes, and *Of the*
the Beginnings of *Stomach.*
all Things, good, or
bad, to the Body,
are in the Stomach.
As Impressions are
made there, and Things transacted,
rightly, or wrongly, the Body, barring
exterior Accidents, is well, or
B ill

2 *Of the Body of Man in Health.*

ill: and the Health firm, or interrupted. While the Stomach prepares and dispenses down into the Blood an Aliment, that is wholely good and right, every Thing must be so over all the Habit: and the Organs supplyd, and inabled to do their Duty rightly, in Passion, Exercise, Labour, and all other Exigences of Life. But, when the Fountain is puddled, the Streams must be so too: and Matter, vitious, and erroneous, in the Stomach, must unavoidably be diffused over and incommode the whole Frame. So that our first and chief Aims, either for the Preserving of Health, or for the Restoreing of it, ought to be directed to the Stomach. When, by any Means whatever, the Contents of this Organ are cast up, as well in Persons in Youth, the highest Vigour, and Health, as others, there ever rises, with the rest, a Biliofe Juice. We have instance of this in the Vomitings that happen, especially during Storms, at Sea: and after hard Drinking. 'Twill not easily be believd how great Quantities of this Juice are frequently thus discharged: and
this

Of the Body of Man in Health. 3

this rising likewise on all other Occasions, in which the Vomiting is free and effectual, 'tis evident this Juice must be natural, and more or less of it ordinarily resident in the Stomach. The Meat, sent down Of Di- into the Stomach, is there reciev'd gestion, by this Juice; which contains in it and the Salts of differing Nature, sweet, Salts that muriatic, Ammoniac, bitter, acid. are the These, when rightly constituted, Instru- and each in due Proportion, act up- ments of on the Meat, particularly the Flesh it. eaten, dissolve, digest, and reduce it to a thin Gelly. By their Action, Of the and Conflicts, a Heat is excited: natural Fumes and Steams rais'd. These Heat in huff up the Stomach: and keep it the Sto- on a moderate Tension and Infla- mach. tion. By this Means it is made Of the somewhat to bear, and press, on the natural Parts all round: and, in particular, Inflation on the descending Trunk of the of the Sto- great Artery; which, being rais'd mach: its up thither for the Purpose, is so Pressure placed, on the very Ridge of the on the def- Back-Bone, behind the Stomach, as cending to be subject directly to its Impulse, Aorta, Action, and Modulation. In Pro- and the portion as the Stomach bears, on this unequal Distribu- tion of the Blood that fol- lows thereupon.

Of the Body of Man in Health.

Vessel, more, or less, it straitens it : and, more, or less, impedes the Descent of the Blood. So that, the Discharge out of the Heart being equal, a greater Quantity is sent to all the Parts above this Curb ; particularly to the Brain ; to answer the great Ends of Nature there, in every Exigence of that important

This requisite to the Exerting of the Passions, the Senses, and Cogitation.

Organ. For the biliose Salts, besides the Part they act in Digestion, concur to the Production of the Phænomena that attend the Passions, Joy, Grief, Fear, Anger : and, by their Regulation of this Tension of the Stomach, and of it's Action on the Artery behind it, to the Modulation of the Brain, the Exertion of the Senses, and of Cogitation. This so surely depends on the Stomach, that it never succeeds rightly, while, either by Reason of the Depravation of the Biliose Salts, or some other Cause, Things are put into a Perturbation there : or while, on Account of intemperate Eating, or excessive Drinking, the Salts are so much engaged in Digesting the over great Charge thus made upon them, as to have little Liberty to assist

assist in the Affair of Cogitation. Where, on the contrary, these Salts are too long and intensely imployed in Cogitation, the Digestion is neglected: and so the Nourishment rendered imperfect. For which Reason Scholars, and Men that give themselves up much to Thought and Study, are ordinarily lean and consumptive. Persons of the finer quicker and more delicate Constitution have some Perception of these Operations on the Brain, and Senses; indeed very great, and distinct, when the Bilious Principle, increas'd, acts with a more than ordinary Power. As to those who have little, or perhaps no such Perception, distinctly, if they please to have Patience till Evidence can be produced of it from various Methods of Proof, and, in particular, from what others percieve and observe, they will, I hope, in due Time, have fuller satisfaction in this Affair. The Aliment, the Meat, ^{The Condition} digested, and diluted with the Drinks ^{of the Aliment in} us'd, passing, out of the Stomach, ^{the Guts:} by the Pylorus, into the Gut Duo- ^{and the} denum, besides what it carries out ^{Transac-} tions ^{at there.}

6 *Of the Body of Man in Health.*

*The
Passage of
the Ali-
ment into
the Blood.*

along with it, takes up more of the Biliose Juice, discharg'd in, by the Duct, from the Liver, there, in the Way, on Purpose. * This continues yet more to heat, dissolve, and act upon the Aliment. Being mov'd, still on, along the Guts, by their Peristaltic Action, the finer and thinner Part of it, by Means of the slight Opposition and Stops, made, in the Guts, by the Steams and Flatus arising from the Conflicts of the Biliose Salts, is turned cross-ways, thorow the Lacteal Vessels, and the Thoracic Duct, into the Blood: and so circulated with it, and thrown about the Body. The coarser, and all that passes not the Lacteals, gradually surmounting those Stops, and descending, is finally flung forth as Excrement. In Sleep, the Pylorus being near closed, the Communication betwixt the Stomach and Blood by that Means in great measure intercepted,

*Of Nourishment.
This distributed to the Parts chiefly during Sleep.*

* *The Pancreate Juice, being of a Mucilaginous Nature, and entering the Duodenum just where the Bile does, serves to smear over and defend that Gut against its Acrimony and Depredations; from which otherwise the Gut would be frequently in great Danger.*

and

Of the Body of Man in Health. 7

and the Descent of both the Aliment, and the Biliose Juice, the Principle and Instrument of Animal Action*, and of Sensation†, being impeded, for the Time, much of the Action in the Frame is, of Course, remitted and suspended. Sensation is so likewise: and the Organs come to a greater Quiet, Ease, and Rest. The Action of the Heart is slackend: and the Blood consequently moves slower. By this Means the Organs and Parts have better Opportunity of seizing, and detaching, out of the common Stock, such Corpuscles as serve peculiarly for the Sustainment and Nourishment of each; this great and important Work being carryd on chiefly in Sleep. As the Blood is circulated about the Body, 'tis brought to the several Glandules, and secretory Organs, that serve for the takeing forth of it Matter very different: and subservient to various Uses, and Ends of Nature; such as the Bile, the Sperm, the Lympha, the Saliva, and, to pass over all the rest, the Mucilage that lubricates the Muscles, the Joynts and Heads of the Bones, rendring

* *Conf.*
p. 10, 11.
infra.
† *Conf.*
p. 12. *infra.*

*Of the
Secretion
of the na-
ral Jui-
ces, and
Fluids out
of the
Blood.*

8 *Of the Body of Man in Health.*

*Of the
Secretion
of the Ex-
crementi-
tious
Fluids.*

them better fitted and more capable
of Action and Exercise. Other

Glands there are that serve for the
Discharge, and Flinging forth of
the Blood, by Way of the Urine,
of Perspiration, and Sweat, of the
Halitus and Breath, such Matter as
may have happen'd to have got, with
the rest, into the Vessels, and is
wrong and improper *: or else such
as is redundant, superfluous, and
more than is needed there. The

*Of the
Colour of
the Blood.*

nutritious Gelly, or Chyle, attended
with the various Salts, above reci-
ted, from the Stomach, and Duode-
num, arrived in the Blood-Vessels,
and circulated with the Blood about
the Body, after the natural Secreti-
ons and Detachments are made from
it, quitting it's pale transparent
Hue, becomes of a red Colour, pa-

* *As there are certainly requisite, for the Forma-
tion and Nourishment of the various Organs, and
the Parts of each, Corpuscles, not only of various
Kinds, but different Sizes, 'tis needfull that the
Lacteal Vessels be capacious enough to give Passage
to the largest: and these Vessels, not admitting
Matter electively, but all indifferently that exceeds
not the Diameter of these Vessels, some must needs
enter that is improper: and that would be injuri-
ous to the Body, were there not this Provision made
for the Casting it forth again.*

ler,

Of the Body of Man in Health. 9

ler, or deeper, upwards almost to a black, answerably to the lesser or greater Quantity, and to the different Proportion, of the several Kinds of those Salts.

The Colour of the Skin, and the Complexion, is owing partly to the Colour of the Blood, shining through the Vessels under-

Of the Colour of the Skin; and the Complexion.

neath, and partly to a mucous or gelatinous Matter lodged in the Pores, and Interstices, near the Surface: and differs, being fair, florid, ruddy, purple, tawney, olive, or black, in Proportion as one or other Kind of those Salts ordinarily prevails, and as the Detachments, by Way of the Skin and Perspiration, happen to be fewer, or more, by Reason of the Climes being colder, or hotter.

By the Colluctations of those Salts, and the Effervescence consequent thereunto, continued, in the Blood, this, and the Parts of the Body, as it passes them, are kept constantly to a due Heat.

Of the Heat of the Blood, and of the Body.

By the Agitation of those Salts likewise, and the Flatus or Steam that here also attends, the Chyle, or thind Nutritious Gelly, introduced and turn'd into the Blood-Vessels, is froath'd up in-

The Origin of the Globules of the Blood.

to

to the Form of Bubbles, or, as they have been usually call'd, Globules.

Their Use in the Production of Muscular Motion:

These expanded, and in Turns contracted, in the Blood-Vessels of the Muscles, are the Instruments of Muscular Action. One Instance of the Greatness of their expansive Power we have in Blood just let out of the Vein into a Receiver; out of which the Air being exhausted, and so the exterior Pressure taken off, these Bubbles, of very small, instantly swelling, and growing bigger, become incredibly large: and indeed the greatest Part, if not the whole Mass of the Blood, froaths and rises up into such. The Strength and Power of the Muscles increases in Proportion to the Multiplication*, Inlargement, and Increase of the Globules. We have a great Proof of this in Epileptic and other Convulsive Fits; in which the Person affected exerts frequently an incredible Strength; indeed 3 or 4 Times greater than natural. The Flatus, that is the Cause† of them, is, in these Fits, commonly so active and turbulent as to froath up even the Phlegm of the Stomach into Bubbles:

* Conf.
p. 19. infra.

† Conf.
p. 19 infra.

Bubbles: and Part of these, with the Flatus, makeing gradually their Way up, from the Stomach, by the Mouth, prove constantly a Crisis, and Solution of the Fit. As the Principles in the Stomach are in Emotion there for some Time before the Pylorus be closed, the Stomach inflated, and the Fit brought on, so they hurry continually, in Quantity greater than usual, into the Blood, till that Stop and Interception happens: and are there ready to act their Part, and exert themselves, upon the Occasion. Other like Instances there are of an extraordinary Strength exerted durence the Passions; as in Joy: of greater, in Anger: and greater still, in Fright. In the Heart, these Globules contribute to the Action there, the *as also of the Motion of the Heart:* Dia stole and Sy stole: and to the Distribution and Circulation of the Blood about the Body. Even in Animals that are dead, if they have not lain too long, an Halitus, or warm Flatus, sent into the Thoracic Duct, passing through the Vena Cava, into the Heart, after it's Action and Pulsation has wholely ceas'd, restores

12. *Of the Body of Man in Health.*

*and of
Sensation.* restores it : and brings the Heart to beat afresh. The Globules of the Blood, with the Aura or Vapour arising from the reciprocal Conflicts of the Biliose Salts, serve placidly to distend the Blood-Vessels, in all Parts : and to render these capable of Feeling, and Perception of exterior Objects and Agents. The Biliose Salts, rightly constituted, and each in due Proportion, as they pass along make, every where, a placid Irritation, and excite a natural kindly grateful Sensation in all the

*The Use
of the
Nerves.* Parts. The Nerves, attending the Arteries, as so many Chordæ tensæ, assist in this Affair : propagate, transferr, and continue the Action, and the Sensation.

*Of the
Animati-
on and the
Mecha-
nism of
the Body
of Man.* All Things being in due Plight, and thus harmoniously concurring, compose such a Mechanism of the Frame, and produce such an Operation, as animates and inlivens it : and renders it capable of Motion, Action, Sense, Passions, Cogitation, and rightly answering all the Offices and Ends of Life. So long as it does that, 'tis in good State, and Health : and they who have Capacity

city rightly to comprehend such a System, and the compleat Constitution of such a Machine, must readily allow it a Work truly worthy of the great wise Author and Frammer of it.

Of Diseases.

But if, by over great Solitude and Care, Study, or Grief, the Salts that serve for Digestion, be taken off from that Work, and otherwayes imploy'd: or, by Gluttony, and Intemperance, unfit Diet, or some other like Means, they be confounded, and overpower'd, an Indigestion must needs follow, and a great Part of the Meat, eaten, be not duely thin'd and fined, but reduced only to a coarse Gelly, or Phlegm. Or if, through any of the recited Causes, through a too great Indulgence to Sleep, or a Sedentary Life, the Phlegm be detain'd in the Stomach, stagnateing, it becomes gradually putrid, and noxious. Besides, by this Stagnation and Delay, a greater Quantity of Salts must, of Course, be

Affections of the Stomach Indigestion.

The Salts in the Stomach multiplied, and depraved.]

be separated and drawn out of it : and particularly those that are unnatural, and improper. Such coarse Phlegm is the more disposed to stagnate there as 'tis more heavy, and viscid: and indeed as the Stomach is relaxed, and deepen'd, by the greater Inflation of it, causd by the Steams ariseing from the Colluctations of the Biliose Salts, now both increased in Number, and vitiated. To these are owing several præternatural Symptoms; an Heat there, upon this Increase of the Cause of it, greater than natural: a Sense of Burning at the upper Orifice of the Stomach: Gnawing, and Gripes: Inflations, with a tensive aching Pain, of that Organ: and those usually call'd Hypochondriac Affections. The Salts being thus redundant, and deprav'd, their Operations must be more intense, and irregular. The Passions become exorbitant: and are attended with Phænomena that are not genuine and usual. There's a greater Disposition to Anger: or perhaps to Fear, or Grief. Nay these Passions are

*These
the Cause
of the too
great In-
flation,
and the
Relaxati-
on of the
Stomach.*

*Of the
too great
Heat:
and of
Pains
there. Al-
so of Hypo-
chondriac
Affections*

*Of the
Disorders
of the
Passions:*

are brought on frequently involuntarily, and without any external Motives. The Body is affected, and the Organs perform, just as the Instruments, that work on them, happen to be disposed, and to act. The Salts are sometimes so far vitiated, and so exuberant, as to get the Dominion over the Patient, put him out of his own Power, and subject him intirely to their Government and Insults. They bring on a profuse Laughing: or Chagrin, Melancholy, Sorrow, and as profuse a Weeping; all involuntarily, and without any exterior Incitements. The Body retains, after these forced Passions are over, but too plain Evidences of the unruly Action, and the Deprædations of these Salts. The Stomach is fretted by them: and rendred commonly very sore. The Appetite is prostrated: and the Digestion much hurt. Besides, ^{as also} these Salts, thus augmented, increase ^{of the} the Sensation: pervert it, impose on ^{Senses:} the Organs of Sense, form Sounds and Voices that are not real, produce lufury Visions, representing Actions Persons and Things that exist

exist no where but in these delusive
and of Operations and Impositions. As
Cogitation these Salts are the Instruments that
 concur to the Producing of Cogitation, being thus multiplyed, they
 render the Thoughts more intense :
 as also so much more hurried, and
 quick, as to be sometimes confused.
 Being depraved, they confound and
 pervert the Power of Thinking :
 bring on Solicitude, Anxiety, Suspicion. Nay they obtrude supposititious Thoughts, and Suggestions ;
 not only without the Concurrence,
 but directly contrary to the Will,
Of Delirium : and of the Person. In fine, when
Madness. highly redundant, and vitiated,
 they annoy the Organs, indispose
 the Frame, and make such a Perturbation and Confusion in the Brain,
 and indeed the whole OEconomy,
 as to bring on Deliria, Madness, and Frenzy. As those Salts cause
 these Disorders, so the Removeal of
 the Salts, particularly by Vomit,
 puts an End to the Disorders. In
 which Operation 'tis observeable
 that the more sick the Patient is,
 and the more powerfully the Vomit
 casts up the Biliose Matter, the better

ter Success constantly attends it: the greater Benefit the Patient receives: and the more it contributes to the clearing up his Senses, and reduceing Him again to right Reasoning; of which there are Instances, so great, and sudden, as to be very surprizing.

The Stomach, by the greater Colluctations of the biliose Salts, and the large Quantity of Flatus arising from them, being more than usually inflated, huffed up, and raised, bears up the Diaphragm, straitens the Thorax, and, by that means, confines, and incommodes the Lungs, and Heart: causes Difficulty of Breathing,

Symptoms and Disorders brought on by an over great Inflation of the Stomach, and Pressure on the descending Aorta.

Faintness, Swooning, renders the Person pusillanimous, dejected, and dispirited. The Heart, and Lungs, in Order to the securing to themselves Scope and Freedom of Action, make continual Efforts, push and thrust out the Breast, sometimes with such Force as to render it finally more than usually big and prominent: and, together with the Pressure of the Stomach, by Degrees, push out the Back, so as to make it, in Time, gibbose and hump'd.

Affections of the Back the Thorax, the Lungs, the Heart, and the Neck.

The

C

Stomach,

Stomach, pressing thus harder than it ought upon the Back, and the descending Trunk of the Aorta, causes sometimes a Pulsation, there: and, when the Force is very great, a Compression of that Artery; as the Efforts of the Heart, make a Dilatation of it again, so as in Turns, to produce a Sense of Opening and Shutting in the Part; very common in Persons of the finer Constitutions, and particularly Women. The Heart to surmount the Resistance made thus to the Descent of the Blood, exerts it's utmost Force: increases it's Action, palpitates, and throbs, for the Time. Till the Pass is gain'd, and the Impediment of it's Descent remov'd, the Heart is overcharg'd with Blood: as are also the Lungs: and the Vessels of the Neck, whereby it is render'd stiff, and frequently tumid, for the Time.

Affections of the Head, Face, Ears, Eyes, and Brain.

The Blood-Vessels of the Head, Face, Ears, Eyes and Brain, are as much overcharged; whereby are brought on the various Affections of those Parts: an Heat, a Flushing, Convulsions, of the Face: Noise in the Ears, Deafness: Mists, and Dimness

ness of the Eyes, Skotomia: an Akeing or Pain, an Heat, Weight, and Sense of Fullness in the Brain: a Pulsation there, sometimes very great and troublesome, keeping Time with the Pulse of the Arm, the Pulsations of the Back, and Palpitations of the Heart: a Dizzyness, Vertigo, Apoplexy; the Symptoms being more or less numerous, and intense, in Proportion to the Quantity of the Blood thus præternaturally thrown up. As, dureing these Dispatches of so great a Disproportion of the Blood upwards, there are but too evident Signs of a Glutt of it there, in the Affections before recited, and in the Plumpness of the Parts, the Ruddy-ness, the Heat, and the great Increase of Strength † that frequently attend; so are there no less evident Signs of a proportionate Want of Blood, a Lankness, a Paleness, a Chillness, and a Feebleness, for the Time, in the lower Parts. Wind, attempting to ascend into the Oesophagus or Gullet, but being repuls'd, and resisted, by an accidental Closure of the upper Orifice of

Signs, dureing these Affections of the Thorax, and upper Parts, of a Glutt of Blood upon them: and of a Want of it in the lower.

† Conf. p. o. supra.

Of the Hiccough.

*Of Epileptic,
and those
call'd
Hysterick
Fits.*

the Stomach, causeth the Hiccough. Succeeding in the Attempt, and getting up in Quantity, but happening to be stopped, at the Top of the Sternum, the Pass being strait there, it presses on the Wind-Pipe, and on the ascending Aorta, sometimes to such Degree as to stop the Breath, and intercept the Passage of the Blood up to the Brain; the Face, in this Case, becoming pale, and wan, for the Time, as if the Person was dead. To this Pressure is owing, when less, the Whoopings of Children, the Choakings and Strangulations of Women: when greater, Epileptic, and those call'd Hysterick Fits. Where the

*of Belchings,
Thirst,
Dryness and
Discolouring of the
Tongue,
Longings,
Failure of
the Appetite, Ill
Tastes,
Foulness of the
Mouth,
Vomiting.
Of Disorders*

Passage up happens to be tolerably free, there are wont to be, while the Salts are in this disorderly State in the Stomach, Belchings of Wind, Thirst, Dryness, and Discolouring of the Tongue, Longings, and absurd Appetites. To the Phlegm there, become putrid, are owing the Failure of the Appetite, the Furr and Foulness of the Mouth and Tongue, Ill Tastes likewise, a Nausea, and Vomiting. The

Com-

Commutations and Disorders of the ^{of the Sleep.}
 Bilioſe Salts, in the Stomach, hin- ^{Comatoſe}
 der the regular Cloſure of the Py- ^{Affections.}
 lorus in Order to Sleep. Which ^{Dreams.}
 therefore ſucceeds uncertainly, and
 ill: Comatoſe Affections are brought
 on : and Dreams, ariſing from the
 Perturbation, and irregular Action,
 of thoſe Salts, upon the Stomach,
 and the irregular Modulations that
 this produces upon the Aorta, and
 that upon the Brain. An Atra Bi-
 lis prevailing renders thoſe Dreams
 frightful, diſmal, melancholy. The ^{Of the}
 Fumes, ariſing from thoſe Salts, ^{Incubus.}
 upon their happening to be debar-
 red Egrefs by the Contraction of
 the Pylorus, at ſetting in to Sleep,
 ſuddenly inflate, raiſe, and diſtend
 the Stomach : and, by that Means,
 diſcompoſe the Brain : cauſe Choak-
 ings, Startings, Surprizes : oppreſs
 the Breſt : and frequently bring on
 that Symptom commonly call'd the
 Incubus, or Night-mare. The ^{of}
 Sleep being diſturb'd, interrupted, ^{Failure of}
 and uncertain, there can be no ſure ^{the Nou-}
 and ſtated Opportunityes for the ^{riſhment :}
 Parts to acquire Nouriſhment : and ^{and of a}
 for each to ſeize, and take that pe- ^{Conſump-}
 culiar ^{tion.}

culiar Matter, that is proper for its own Supply, out of the common Store and Mass of the Blood. Then, the Digestion being defective, the Meat is not sufficiently dissolved: but sent down, in Form of Phlegm, too gross ever to be admitted by Organs so fine as those destin'd to receive the Nutriment, and serving rather to load and annoy, than to support and nourish the Parts. Besides so great a Quantity of Bilious Salts, transmitted continually into the Blood *, fret, corrode, and fetch off the Nourishment that the Parts had before attained. Under which Circumstances a Decay, Leanness, and Consumption must needs follow.

The Agents that rouse and incite the vitious Principles in the Stomach. The low. The vitious Contents of the Stomach, incited by various Agents, and cast thence, downwards, produce various Phænomena, suitable to the different Quantity of them: and to the Nature of the Agent that excites them, *e. gr.* Passion, over-great Exercise, improper Diet, unfit Medicines, Poyson, a Pestilential or other contagious Aura, intense Heat, Cold, or the like. Being suddenly roused, and hurried

The Decent of

* Conf. p. 23, infra.

hurried into the Guts, in Quantity, they cause a Looseness. The vitiated Bilious Salts, attending, corrode the Guts, cause Gripes, the Colic, or a Tenesmus. When numerous, and very sharp, they wound the Blood-Vessels, as they pass along: and bring on a Bloody Flux. Passing more leisurely into the Guts, the Heat, now increased, renders the Fæces dry, and hard: and the Body costive. The Fumes, and Wind, now likewise increased, make greater Stops in the Guts: and, by that Means, turn and force a greater Quantity of the Contents of them, Phlegm, and vitiated Bile, into the Blood. These, being cast upon the Glands, Vessels, and Parts, particularly those above the Curb of the descending Aorta, serve to increase the Symptoms of the Lungs, Brain, and the rest. Besides, the Fumes increased, in the Blood, cause a greater Tension of the Vessels: and an Increase of the Perception, and Sense of Feeling, in the Parts. They sometimes get out, into the larger Vessels, the Bladder of Urine, the Scrotum, the

those Principles into the Guts.

Of a Diarrhæa, the Colic, Tenesmus, and Dysentery.

Of a Costive Habit.

The Turning of the vitious Principles, Phlegm, and Bile, into the Blood; with the Symptoms and Accidents that follow thereupon.

A too quick Sensation.

Inflations of the Vessels, and Parts.

C 4 Uterus

Fevers.
Inflam-
mations.
Pains.

Uterus ; inflating, distending, and causing other Disorders in them. The Biliose Salts, being in too great Plenty, over heated, and thus thrown into it, over heat the Blood, and the Body : and bring on Fevers. They excite an harsh, uneasy and offensive Sensation, as they pass along : and being pitch'd or settl'd on any Part, they cause in it Akeings, a Tendernefs, and Sorenefs, or an Inflammation. In particular they bring on the Pleurisy, Peripneumonia, Quinzey's, and even Gangrenes : as also Pains, Scorbutick, Rheumatic, Arthritick, the Gout, and the rest.

Phlegm,
or Size,
in the
Blood.

Tre-
mors, Con-
vulsions,
Paralytic
Affections.

Phlegm, passing into the Blood, thickens it, and renders it sizy. When it happens to be very gross, it moves uncertainly, and irregularly, in the Vessels, by Fits and Starts, causing Twitchings, Subfultus's, Paralytic Affections, Tremors, Convulsions : impacts in the fine small capillary Blood-Vessels, obstructs them, keeps out the biliose Salts, the Principles of Heat and Sense, and by that means causes a Chillness, and Numbness of the Part.

Hydro-
pne-

Crouded
in,

in, in greater Quantity, it causes Swellings Arthritic, ^{and other} Of dematose, Hydro- ^{Swellings.} pic: in the Glandulous Parts, Strumose, Schirrhose, Cancrose Swellings, and Buboës: where Bile is prevalent, ^{Pustu-} Phlegmones, Boils. With Fevers, ^{les, and} these vitious Principles produce Ra- ^{the like} shes, Pustules, Carbuncles, and o- ^{Erupti-} ther Eruptions. To the same Prin- ^{ons.} ciples are owing the Erysipelas, the ^{Cuta-} Effere, or Nettle-Spring, Tetters, ^{neous Af-} Scabs, Herpes, Elephantiasis, the ^{fections.} Leprosy. Phlegm abounding in ^{Chan-} the Blood, and perhaps Part of it ^{ges of the} repositèd near the Skin, gives this, ^{Colour of} and the Countenance, a Cast of ^{Skin, and} pale or, wan. The Biliose Mat- ^{of the} ter, vitiated, or redundant, thô ne- ^{Complexi-} ver so little, gives a Sully, Tarnish, and ^{on.} Hue, of such Sort as the Salt, that happens to be most prevalent in it, naturally produces. These Appearances in the Complexion, proceeding from the very Principles that are the Causes of Diseases, do let those who understand, and can rightly distinguish them, very deep into the Condition of the Patient: and discover the real Instruments of all his Ails; than which No-
thing

*The
Jaun-
dice.*

*The
Scarlat
Hue of
the Skin
in some
Fevers :
the Spots
in others,
and in the
Scurvy.*

*Vitious
Principles
in the
Natural
Fluids :*

*as also
in the Ex-
crementi-
tious Flu-
ids.*

thing can more happily serve to steer them in their Procedure for the Cure. But where the Biliose Matter happens to be thrown in greater Quantity towards the Surface, it discovers itself more evidently: and shines thorow the Skin, with greater Lustre, and in it's proper Colours, green, yellow, red, purple, blue, black; either diffus'd over the whole Habit, as in the Jaundice, the Scarlat and other like Inflammatory Fevers: or only scattered in Spots, as in the Scurvy, and Pestilential Fevers. The Biliose Salts abounding in the Blood, discover themselves likewise in the Liquids secreted from it, the Sperm, Lympha, Saliva, Mucilage; rendering them sharper than natural, as also hotter: and sometimes tingeing them with Colours suitable to those of the Biliose Salts that prevail. In like Manner the Excrementitious Fluids bring forth these Salts along with them. The Phlegm, rais'd by Spitting, is sweet, or bitter, or Salt, or acerb, or sour: and tinged with yellow, or green, or black. The Sweat is salt, sour: causes a Smarting

ing and Pain as it passes forth, and frets the Skin. The Tears are hot, sharp, salt, corrosive. The Urine, ^{The Stone of the Kidneys, and Bladder.} besides Phlegm, which, when crass, and in Quantity, sometimes impacts in the Vessels, and contributes to the Formation of those Concretions call'd Stones, in the Kidneys, and Bladder, brings with it Salts, Saccharine, as in the Diabetes: or ^{The Diabetes, the Strangury, and Bloody Urine.} Ammoniac, muriatic, bitter, acid. These frequently impart an Heat, and Sharpness, to the Urine; so as to cause a Nephritis, and indeed Pains in all the Parts through which they pass: nay sometimes to corrode the Vessels, to such Degree as to wound, lacerate them, and fetch forth Blood. To the vitious or redundant Salts, got into the Blood, ^{Spitting Blood: and other Hemorrhages.} are owing the Uterine Hæmorrhages, and the Effusion of Blood by the Piles: as also Bleeding at Nose, Vomiting and Spitting of Blood; only, in the three last Instances, to the Corrosion, is added a Force, and Protrusion of Blood upon the Parts, happening by means of the Curb made upon the descending Aorta by the Stomach inflated.

A

*Apostemations,
and Ulcers.*

A crass Phlegm, frequently clogging in these Cases, crouded into the finer Vessels, stretches and thins them ; and, if it do not burst them, renders them more lyable to be wounded by the Salts. Phlegm, thin'd, and impregnated with more or less of the Biliose Salts, approaching the Skin, and Surface, makes Apostemations, Ulcers, Whit-flaws, Chillblains, Kibes. Phlegm, cast upon the Bowels and interior Parts in such Quantity as to over-distend, and finally burst the Vessels, makes Apostemations of them, as in an Empyema : and the Bile, corrodeing the Vessels, produces Ulcers there.

The Causes proceeding all out of the same Source, Diseases are very rarely single.

Of their Changes, and Metastases : and of Crises.

The Causes of all the Symptoms, and Diseases, proceeding forth of the same Fountain, 'tis not strange that so many should commonly discover themselves, at once, when the Morbid Principles, there, are in Quantity, and happen to be excited and put into great Emotion. Indeed there is hardly any one considerable Symptom, that ever offends human Nature, that does not either precede, attend, or follow the Small-Pox : or, in Truth,

any

any other Disease that happens to be very great. 'Tis for this Reason that, being to treat, by and by, of the Small-Pox, I shall be obliged to consider so many other Diseases, and Symptoms : and to bring the Remedyes of all to the Test. 'Tis certain that they have so great an Affinity, and such a Connexion and Dependance, that no Man will ever rightly cure any that does not extirpate the Principles of all : and chase them forth, wherever they happen to reside, or to retreat. For they shift, and are flung from Place to Place, as the Organs can successively dispatch and get rid of them. Hence come the Changes, and Reciprocatations of the Symptoms: Metastases, and Crises. What contributes something to the confirming of this, is, that, in the Opening the Bodyes of Persons that die of any great Disease, besides the Parts that might be expected to be injured by that, we find ordinarily Marks and Tokens of Ravage upon others likewise, and sometimes upon all. Thô the Causes of them be supply'd all out of the

*The
Reasons
why*

same

why, tho' the Causes come out of the same Source, Diseases happen to be so different.

Of the Frequency of Diseases: and of the great Uncertainty of Life.

same Fountain, the Symptoms and Diseases, will be various, and more or less numerous, as the Principles there happen to be more or less vitiated : to be in greater or less Quantity : as the Body is costive, or free : as the vitious Principles happen to rise by Vomit, goe down by Stool, or turn into the Blood : and, when there, as they chance to hover about the Whole, or to pitch and light upon some Organ or Part : as any of these, happening to have greater Strength, casts them upon a weaker : as the Patient is in Youth, or in Age, in firm Vigour, or shatter'd and weak : as the Seasons, and Constitution of the Air, the Diet, Method of Life, and other exterior Circumstances, happen to be. Then, as the Morbid Principles are more or less vitious and exuberant, and are put into Commotion suddenly or leisurely, the Disease is acute, or chronical, short, or long. Since the great Instrument of Digestion, of the Passions, of Animation, and Life, of the Senses, and of Cogitation, is so much subject to be redundant and vitiated

tiated, and being once so, all these become of course disorder'd, 'tis not strange that Diseases should be so very common, and Health so uncertain. The Principle of Digestion is absolutely necessary: and 'tis as much so, that the Bowels, and interior Parts, where it resides, or passes, should have much less Sense than the exterior. Were it not for that, they would be in perpetual Pain and Uneasyness, because of the Sharpness, and intense Action of this Principle. Having therefore only a lesser Sense, this Principle becomes frequently highly exuberant, and vitiated, before they have any Perception of it: or can discover it, and shew Signs of Injury, and Danger. This is the Reason that Diseases are frequently so violent, so sudden, and of so difficult Treatment: and that so few live out the ordinary Term of Life, or attain their Threescore Years and ten.

This Term is set, adjusted, and measur'd out, by the Number of the Lacteal Vessels. Which Number is such as, the Body being originally sound, and rightly constituted,

Of Decay with Age: of the common Period of Life, and of Death.

tuted, will suffice to convey Nourishment, and to support it, for that Term, or perhaps a little longer, if attended with only the common Accidents of Life. These are, unkindly Seasons, Inclemencies of the Air and Weather, the common Cares of Life, and every Thing else, in the ordinary Course of it, that disturbs Digestion, and a thorow Dissolution of the Aliment: or that præcipitates, and hurries it out of the Stomach, so suddenly that there is not allow'd due Time for the Digestion of it, as violent Exercise just after Meals, or the like. The Aliment, upon such Accidents, being dispatch'd thus gross into the Lacteals, by little and little impacts, † *Conf. §.* makes Gluts, and Stops †, in them: 69. *infra* and those Passages being one after another obstructed, and render'd ever after useless, the Dispatches into the Blood must be thereby less'n'd. The Strength, Vigour, and Nourishment, must lessen in Proportion. Consequently the Body must become gradually feeble: as also lean, which therefore happens usualy to People in Years, especially
in

in such Constitutions where the Bilioſe Salts prevail *. As, by theſe Stops, more and more of the Lacteals are yearly ſet off, with Age, the Body muſt continually decay: and, when ſo many are obſtructed that the reſt cannot tranſmitt Nouriſhment ſufficient for the Support of Life, Death muſt inevitably inſue. This is the Lot, and common Fate of Man: and by theſe Accidents the ordinary Bounds of Life are ſet out, and determin'd. But where, inſtead of a vertuous and wiſe Regulation of Life, there are great Errors, and Enormityes, that heighten and increaſe the Indigeſtion, as Gluttony, unfit Diet, Luſt, and other exorbitant Paſſions, theſe do what tends to the Confounding the Lacteals, and the other like fine Organs and Veſſels, much faſter; by that means abridgeing Life, and bringing Death continually nearer and nearer. As do likewise all thoſe Medicines that diſlodge the vitious Contents of the Stomach, and transfer them into the Lacteals. Nor indeed is this done by any Thing ſo ſurely, or with that Danger

* Conf. p.
22. ſu-
pra.

*The
high Im-
portance
of the Art
of Physick.*

ger to the Frame, as by Purges that are slight, and impotent ; such rousing and stirring up the Indigestion, but not carrying it thorowly and effectually out of the Body. Could either the Giver or Taker of such Medicines look afterwards into the Body, see what Havock was made there, and how many Months, nay perhaps Years, of Life, were cut off by some of these Operations, 'twould certainly startle, alarm, and deterr them from ever again attempting the like. The great Wisdom, and the Happiness of Man, consists in a due Care of the Stomach, and Digestion : and in rightly ordering and adjusting the Principles there. 'Tis the Business of the Medical Art to deliver the Rules and Precepts of this : and 'tis, at first View, evident of how great Moment it is to Mankind that the Professors of that Art be rightly apprized of these, and how dangerous, if they will interpose without that. This is certain, that, so long as the Mechanism of the Body holds, even the Exorbitances, Errors and Disorders, there, during Diseases, must be reducible to
Laws,

Laws and Rules, by those who are
duely apprized of that Mechanism,
and the Causes of those Disor-
ders. The *Physitian* † that is so : + 'O 'In-
and that superintends with the *Εὐε φίλο-*
Faithfulness, the Vigilance, and the *σοφίᾳ*
Humanity that an Affair of so high *Ἱπποκρ.*
Trust requires, is truly what One, *ὡς*
who was such himself, as well as *εὐσχημ.*
the best Judge on Earth, styles a *§ 5.*
Philosopher acting after the Pattern
of the *first Framer* of the Machine.

Of Remedyes.

From the History of Nature *The*
in all Ages, and Reflection on *constitu-*
Things, we have sufficient Evidence *ent Cor-*
that the Principles, or original Cor- *puscles, or*
puscles*, that constitute Bodies, never *Principles*
change: but have continued, through *of Natural*
all Ages, the same. Neither is *Things,*
there the least Reason to think that *never*
any one single Corpuscle has been *change or*
broke: nor it's Figure, it's Magni- *alter.*
tude, it's Gravity, it's Solidity, or
it's Constitution in any Respect,
been altered, from their first Pro-
duction to this Moment: nor in-
deed that they ever will or can na-
turally

** Of these, see the Nat. Hist. of the Earth Part V. and Discourse of Vegetation Philos. Transact. N. 253.*

No
Transmu-
tation of
Metalls.

The
common
Notion, of
altering
the Prin-
ciples of
Diseases.
by those
call'd Al-
terant
Medi-
cines, who-

turally be alter'd. 'Tis true, their Mix-
tures and Combinations are infinite:
and consequently their Disguises,
and Alterations, as to Sense, and
exterior Appearance. But, when
again separated, and disingaged,
they are ever the same: and at-
tended with all their original Pro-
pertyes. Brought to any Test, to
any the highest Rack and Torture:
committed to the most intense Fire,
to the strongest Menstruums, they
come ever forth again without any
Essential Change. Which may serve
to shew how vain, delusive, and ill
grounded the Essayes for Transmu-
tation of Metalls have been. This
Enterprize is now, at length, pret-
ty well worn out of Credit, and
Use; the Reasons of Things, and
the Experience of Ages, going so
directly against it. But, in an Af-
fair of vastly greater Moment, the
Life and Health of Man, the Do-
ctrine of Transmutation obtains, to
this Day, as generally as ever: and,
as our Age hath fully shewn, with
very great Success, even to the
meanest and most illiterate of the
Undertakers. How great Miscar-
riages

riages soever there may have been ^{ley chime-}
in the Metallick Way, 'tis most ^{rical and}
certain there hath been very much ^{imagina-}
^{ry.}

Gold drawn forth by this. But, to treat the Thing as gently, and tenderly, as may be, as to any Changes wrought to the Advantage of the Patient : any realy good and lasting Effects of those passing under the pompous Title of *Alterant Medicines*, all Nature is silent. On the contrary, several of those in common Use have very ill and mischievous Effects. There are indeed some that make the morbid Principles shift, and the Symptoms consequently to change : others that imbarrafs, stille or suppress those Principles for a while : or that stupefy the Organs, rendring them insensible of their Annoyance ; but, if they remain still within, and have Qualities that are injurious, these Qualities are natural, inherent, and never desert them. So that, sooner or later, as the Principles can disengage themselves, they will not fail again to be injurious. Besides, the Medicines, that captivate them, will be at least as likely to captivate

No
Change e-
ver made
to the Ad-
vantage
of the Bo-
dy, but by
a succes-
sive Reno-
vation of
Things in
it : and a
Removeal
of the nox-
ious Prin-
ciples, in
Order to
the Substi-
tuteing
those that
are natu-
ral.

* Conf.
§ 56.
infra.

vate other Principles there that are good, and useful; and indeed needed by the Body for the Time. So that, in fine, those vitious Principles must be thrown out by Art, if that be not done by Nature, in her own Defense, either as incited by them alone: or when, to the noxious Principles within, Medicines, perhaps more noxious, are charged in upon her. As Phlegm, and Indigestion, stagnateing, becomeing thereby putrid, and furnishing forth a too great Quantity of the Biliose Salts, is the Cause of all Diseases, these cannot be remedyed but by Removeal of that Cause: Makeing Way for a new and better Digestion, and for a gradual Renovation * of all Fluids. As to the Salts, thô there be none within besides what are natural, if they be multiply'd, and their Number too great, thô, while fewer, they excited a placid, now, increas'd, they must excite a painful Sense: and, if in Number sufficient, lighting upon some Part, destroy that, or perhaps the Whole. Nor is this to be avoided, unless the Salts be retrench'd, and their

Num-

ber lessen'd. But, if there be within Salts that are vitious, and improper, they will ever be so, as long as they continue there: and therefore they ought to be dismis'd, as soon, and as effectually, as may be. All Nature and Reason concurr and center in this.

In the Discourse before me † I shall give some Intimations how far Alterant Medicines may be made subservient to this Design: and likewise offer so much, relating to the Practice of Evacuations, that there will be no Need to enter into any particulars of that Subject here. For the present therefore I shall only take Notice, that, in Order to the Making those Evacuations successfully, the Acrimony of the peccant Salts should be temper'd: and their Colluctations repress'd. For, if Care be not first taken of this, they so far insult and dissolve the Evacuant Medicines as frequently to frustrate and prevent their Operation. This indeed is the main Cause why some Bodies are so hard to be operated upon. The other Causes are, overgreat Inflations of the Stomach and

The chief Impediments of Evacuant Medicines.

The Preparation of the Body needful to render Evacuations, and Discharges of vitious Matter, practicable and successful. † § 66. & seqq.

*The
imme-
diate good
Effects of
this,
rightly
executed,
in all Ca-
ses.*

Guts : and Stops made in the Guts, by Phlegm, and harden'd Fæces. But, those Salts being subdued, which is not so happily done by any Means hitherto known as by Interposition of Oyls, and Unctuous Medicines, they are the more easily dealt with, and removed. Then the Stomach will, by these Medicines, be guarded against their Erosions, and the Pains they are wont to cause. The Membranes will be render'd lubricous : and the Passage, of the vitious Contents, out of the Stomach and Guts, facilitated. Besides, the Heat, and the Fumes, arising from the Colluctations of those Salts, will be thereby lessen'd : and consequently the Inflation of the Stomach, it's Pressure upon the descending Aorta, and the Affections of the Back, Thorax, and Head. The Passions, Senses, and Thoughts will come to a better Regulation, and more correct Discipline. The Salts, to which, passing into the Guts, Gripes, the Colic, and Dyfentery, are owing, will be bridled : and render'd less pungent and offensive. The Fumes, the

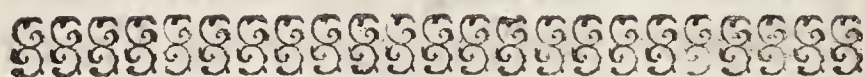
the Cause of the greater Stops of the Guts, being lessen'd, those Stops must lessen in Proportion : and consequently a lesser Quantity of the vitious Salts, and putrid Phlegm, be turn'd into the Blood, and upon the Habit. So that the Effects of them there, the Paralytick Symptoms : the Fevers, the Inflammations, the Pains, the Swellings, the Pustules, or other Eruptions : the Sully of the Complexion, the Discolouring of the Skin, Jaundice, Spots, Consumptions, and the Depredations upon the Flesh and Habit : the Vitiations of the Lympha, and other natural Humors : the Overcharges upon the excrementitious, the Urine and Sweat : those Erosions, and that Force upon the Blood-Vessels, by which Hæmorrhages are caused : and the Efflux of the Salts forth of Apostemations, and Ulcers, that renders them ordinarily so painfull, obstinate, and intractable ; I say all these, upon the Tempering the Acrimony of the vitious Salts, and Lessening of the Stops and Turnings into the Blood, must be at a Stand, for the Time.

*Those
good Ef-
fects carry'd on,
and
Diseases
finaly e-
radicated,
by Evacu-
ant Medi-
cines..*

*Of o-
ther Me-
thods of
Practice.*

Time. But, when after this, the Evacuations come to be discreetly carry'd on : and the vitious Principles that, partly resideing in the Stomach, and partly flowing into the Guts, and thence into the Blood, caus'd all those Disorders, are taken in the Fountain, and artfully cast out of the Body, the Disorders must relax, abate, and finaly cease. They, who having had Opportunities of making Observations on the Body, Diseases, and Medicines, have done that with the Attention that is requisite, will see that the Representation, here given in, is genuine : and founded intirely upon Nature. Nor will it be hard to bring to this Test all other Methods : and to form a determinate Judgement of each. For instance, to make Judgement of that Practice that pretends to operate upon, to correct, and sweeten the Blood, without first effectually securing and clearing the Stomach, the Source of all the Errors in the Blood : of that Practice that attempts to restrain and stop a Vomitting, a Diarrhæa, a Dysentery, without

without, haveing first taken Care to support and invigorate the Frame for the Time, flinging forth the vitious Matter that Nature, oppress'd with it, indeavours to discharge by those Wayes : of that Practice that attempts to repress a Diabetes, a Profusion of Sweat, a Fluor albus, Hæmorrhages, Coughs, Spitting, Rheums, to repell the Causes of Pains, Swellings, Pustules, Scabs, without first intercepting and turning off the Principles that produce and supply them, or clearing the Source out of which all are derived. Such Practice apparently defeats Nature in her Indeavours to rescue the Constitution, and save Life.



An Idea of the Nature of Man :
of the Disorders to which it
is obnoxious : and of the
Method of Rectifying them.

I N D E X.

Of the Body of Man in Health.

O*F the Stomach. p. 1.*
Of Digestion, and the Salts
that are the Instruments of it. p. 3.

Of the Natural Heat in the Sto-
mach.

Of the Natural Inflation of the Sto-
mach : its Pressure on the de-
scending Aorta, and the unequal
Distribution of the Blood that fol-
lows thereupon.

This requisite to the Exerting of the
Passions,

Passions, the Senses, and Cogitation. p. 4.

The Condition of the Aliment in the Guts : and the Transactions there. p. 5.

The Passage of the Aliment into the Blood. p. 6.

Of Nourishment. This Distributed to the Parts chiefly dureing Sleep.

Of the Secretion of the Natural Juices, and Fluids, out of the Blood. p. 7.

Of the Secretion of the Excrementitious Fluids. p. 8.

Of the Colour of the Blood..

Of the Colour of the Skin : and the Complexion. p. 9.

Of the Heat of the Blood, and of the Body.

The Origin of the Globules of the Blood.

Their use in the Production of Muscular Motion : p. 10.

as also of the Motion of the Heart : p. 11.

and of Sensation. p. 12.

The Use of the Nerves.

Of the Animation, and the Mechanism of the Body of Man.

Of Diseases.

Affections of the Stomach. p.13.
Indigestion.

*The Salts in the Stomach multi-
 ply'd, and depriv'd.*

*These, the Cause
 of the too great Inflation, and
 the Relaxation of the Sto-
 mach. p.14.*

*of the too great Heat : and of
 Pains there. Also of Hypo-
 chondriac Affections.*

*of the Disorders of the Passions :
 as likewise of the Senses : p.15.*

and of Cogitation. p.16.

of Deliria : and Madness.

*Symptoms and Disorders brought on
 by an over great Inflation of the
 Stomach, and Pressure on the de-
 scending Aorta. p.17.*

*Affections of the Back, the Thorax,
 the Lungs, the Heart, and the Neck.*

*Affections of the Head, Face,
 Ears, Eyes, and Brain. p.18.*

*Signs, during these Affections of
 the Thorax, and upper Parts, of
 a Glutt of Blood upon them : and
 of a Want of it in the lower. p.19.*

Of

Of the Hiccough. Of Epileptic, and those call'd Hysteric Fits. p. 20.

Of Belchings, Thirst, Dryness and Discolouring of the Tongue, Longings, Failure of the Appetite, Ill-Tastes, Foulness of the Mouth, Vomiting.

Of Disorders of the Sleep, Comatose Affections, Dreams.

Of the Incubus. p. 21.

Of Failure of the Nourishment: and of a Consumption.

The Agents that rouse and incite the vitious Principles in the Stomach. p. 22.

The Descent of those Principles into the Guts.

Of a Diarrhœa, the Colic, Tenesmus, and Dysentery. p. 23.

Of a Costive Habit.

The Turning of the vitious Principles, Phlegm, and Bile, into the Blood; with the Symptoms and Accidents that follow thereupon.

A too quick Sensation.

Inflations of the Vessels, and Parts.

Fevers. Inflammations. Pains. p. 24.

Phlegm, or Size, in the Blood.

Tre-

Tremors. Convulsions. Paralytic Affections.

Hydropic, and other Swellings.

Pustules, and the like Eruptions. p. 25.

Cutaneous Affections.

Changes of the Colour of the Skin, and of the Complexion.

The Jaundice. p. 26.

The Scarlet Hue of the Skin in some Fevers: the Spots, in others, and in the Scurvy.

Vitious Principles in the Natural Fluids:

as also in the Excrementitious Fluids.

The Stone of the Kidneys and Bladder. p. 27.

The Diabetes, the Strangury, and Bloody Urine.

Spitting Blood, and other Hæmorrhages.

Apostemations, and Ulcers, p. 28.

The Causes proceeding all out of the same Source, Diseases are very rarely single.

Of their Changes, and Metastases: and of Crises.

The Reasons why, tho' the Causes come out of the same Source, Dis-

Diseases happen to be so different. p. 29.

Of the Frequency of Diseases : and of the great Uncertainty of Life. p. 30.

Of Decay with Age : of the common Period of Life : and of Death. p. 31.

The high Importance of the Art of Physick. p. 34.

Of Remedies.

The constituent Corpuscles, or Principles of Natural Things, never change or alter. p. 35.

No Transmutation of Metalls. p. 36.

The common Notion, of Altering the Principles of Diseases by those call'd Alterant Medicines, wholly chimerical and imaginary.

No Change ever made, to the Advantage of the Body, but by a successive Renovation of Things in it : and a Removeal of the noxious Principles, in order to the Substituting those that are natural. p. 38.

The chief Impediments of Evacuant Medicines. p. 39.

The Preparation of the Body needful to render Evacuations, and
E
Dis-

Discharges of vitious Matter, practicable, and successfull.

The immediate good Effects of this, rightly executed, in all Cases. p. 40.

Those good Effects carry'd on, and Diseases finally eradicated, by Evacuant Medicines. p. 42.

Of other Methods of Practice.




THE



THE STATE
OF
PHYSICK:
AND OF
DISEASES;

With an Inquiry into the Causes of the late Increase of them: but more particularly of the SMALL-POX. With some Considerations upon the New Practice of Purging in that Disease.

I.  IFE, at best, is short: *The*
and very unhappy *Occasion*
when not attended *of this Dis-*
with Health. Indeed, *course.*
without that, Man
is little capable of Comfort to Him-
self: and less of Doing Good to
E 2 others,

others, and to the World ; thô this be the true End of Life, and what only can bring back to an exalted great Mind a Pleasure that is solid and lasting. But yet we have of every Side too plain Evidences on how uncertain a Foundation Health generally stands : and how much Diseases gain Ground, especially the Small-Pox ; which have made great Havock : and committed cruel Outrages of late, here amongst us. For the Regard I have for my Country, I could not look on, and observe this, without real Concern, and Uneasiness. But that began to lessen when I found, amongst those *Commentaries*, which Dr. *Freind* has now lately published upon *Hippocrates's* 1st and 3d Book of *Popular Distempers*, One concerning the *Small-Pox*. Thô when I come to read this, and to consider it, how great soever my Prepossession may be in Favour of the Author, I cannot assent to the Method, there propos'd, of Purgeing, upon the Access of the Second Fever, in the confluent Small-Pox. 'Tis true, he indeavours to support
it

it by the Authorityes and Practice of *Rhazes*, *Dr. Sydenham*, and *Dr. Radcliff* † : and by the joint Testimonies, and Opinions, of some *Physitians now living*; whose *Letters* he has there publish'd *. Though I * *P. 103.*
am far from being wanting in De- & *Seqq.*
ference to these Gentlemen, I cannot deny but that I could much rather have wish'd, that, after he had recited the Symptoms, he had set forth the Causes of them : and fix'd a Test and Standard of Nature, whereby some sure Judgement might be made of this Affair. But, he having not done that, I shall attempt it my self in the best manner I can ; the rather because I think that Method, of Purgeing, not attested either by Reason, or Nature : and indeed because it has proved frequently not only dangerous, but fatal. Even a Looseness, brought on by Agents within, and that has been the Work of Nature, has, in Defiance of Remedyes, and of the utmost Skill, and Care, but too commonly carry'd the Patient off.

Of The-
ories, and
Hypothese-
ses.

Philosophy
of great
Service to
Physick

The Ne-
cessity of
Inquire-
ing into
the Causes
of Diseases.

* *Epiq.*
Dedic.p.
15. &
Seqq.

II. In every Thing that Dr. *Freind* hath hitherto published, and particularly the present *Commentaries*, he hath advanced several Hypotheses; some of which are right-ly supported: and the rest all so ingenious that I cannot but be pleas'd with them. But then I can see no Reason to debarr myself of the same Pleasure from those of Dr. *Willis*, Dr. *Sydenham*, Dr. *Morton*, and other Physicians, to whose Hypotheses Dr. *Freind* * is so very averse; he haveing not, exclusive of others, the sole Privilege of entertaining the World in this Way. Indeed the forming Hypotheses is what the Ancients, from the first and most early Times, have given numerous Precedents of: as have likewise the later Philosophers of most Nations. Our own hath not been behind her Neighbours in this Respect; the Hypotheses of my Lord *Bacon*, Dr. *Gilbert*, Mr. *Hobbes*, Mr. *Boyle*, Dr. *Wallis*, and Others, haveing been receiv'd with Applause all over Europe. Now lately Sir *Isaac Newton* hath advanced several very extensive and considerable

rable Hypotheses. Indeed the Delivering these to the World is the main Design of what he has publish'd: and One of these, that of *Attraction*, Dr. *Freind* hath undertaken peculiarly to illustrate and confirm †. Nor is there Reason to think that the Philosophers of all Ages and Nations, have judg'd wrong in this Respect. They who are universally allow'd the very greatest, and wisest of Men, have been, and still are, intent upon the Makeing of Observations, and Experiments: and surely that must be in Order to some further End. These would be vain, and wholly useless, were not some Reflections made, some Conclusions drawn, some Theory or Hypothesis rais'd from them. 'Tis true, the most exact Caution ought to be used that those Hypotheses have good Warrant, and firm Support, from the Observations and Experiments: and such must be assuredly of the highest Importance, and Service. They must, of course, pave the Way to the greatest and most usefull Truths: and such as, being abstruse, and

† *Prælect.*
Chym.

profound, would otherwise ly ever wholely in the Dark. They must lead to Discoveryes that, without those Hypotheses, would perhaps never be once thought of. This every Man, who thinks, or ever himself reflects, cannot but be conscious of : and there are so many noble Examples of it in View of all, that 'tis needless to set forth any here. Nor indeed is any Man more sensible of this than Dr. *Freind*. 'Tis true, he is, now, a little out of Humour, with some particular Theories ; but heretofore he very warmly asserted † the great Usefulness of a Theory in Physick ; recommending * the Composition of One, very pressingly, to the Physicians of *England*. And, tho he rejects the Hypotheses that have hitherto been attempted, he thinks it practical to form such as may be, in many Respects, equally certain with those of Geometricians ||. Such I should rejoyce to see. Nor, if I may presume to pass Judgment in this Affair, can any Man more fitly ingage in it than the Proposer. Mean while it must be

† *Emmenolog. p. 186 & Seqq.*

* *Ibid. in Prefat.*

|| *Ibid. in Prefat.*

be allowed that he who has, by proper Experiments, rightly inform'd himself of the Methods of Operation, and the true Propertyes of the several Things used in Medicine, who is duely apprised of the Mechanism of the Body, and the Laws of Action there, while the Body is in Health: as well as what is amiss, and in what particular Manner those Laws are broke in upon, under each various Disease and Symptom; such a Physician, I say, has vastly the Advantage of One, who has not that Accomplishment, and only practises upon Receipts. The former governs and leads the Distemper: the latter is intirely led by it. The one is in clear Light: the other altogether in the Dark, acting wildly, uncertainly, and wandring from one Receipt to another, till perhaps Things are gone so far that rational Help comes finally too late. The one understands the Course and Succession of Things within, so as to know the proper Manner, and Time, of interposing in such Sort that no Opportunity of Administration, and Giving

ing

ing Relief, escapes him. The other is puzzling, and, very likely doing only Hurt, all the while. Of all Men living a *Physitian* has need of the highest Wisdom and *Consideration*†; nor is every *thoughtless Animal*, by any Means, capable of the Practice of that noble *Art* that is intrusted with the *Superintendence* over the *Health*, and the *Steerage* of the *Life* of *Man*. 'Tis true, the *Empiricks*, of old, *contended* * that the *Search* into the *Procedure* of *Nature*, or into the *dark* and *latent Causes* of *Things*, was *needless*, and *nothing to the Purpose*; since 'twas not of *Use* to know what might *bring on a Disease*, but what would *take it off*. But the more rational *Practitioners*, rightly enough, judged this *Enterprize*, of *Takeing off* they knew not what, a

† *Neque---dicere Consilio Medicum non egere, & irrationabile Animal hanc Artem posse prestare. ---Salutis humana praesidem Artem. Celsus Lib. I.*

* *Obscurarum verò Causarum, & naturalium Actionum Questionem---supervacuam esse contendunt. ---Latentium Rerum Conjecturas ad rem non pertinere; quia non intersit quid Morbum faciat, sed quid tollat. Ibid.*

great Absurdity. 'Twas firmly their *Persuasion* that 'twas not practical || for any One to *know in what Manner to set about the Cure of Diseases*, who was altogether *unacquainted whence they proceed*: and that he alone could do that with *Success*, who had thorowly inform'd himself of the *Causes* of them. Our great Business therefore is to get Intelligence of those Causes †. This is the Voice of all found Antiquity; of which no Man was a better Judge than *Celsus*, a more diligent Collector, or more faithfull Relator. All the most judicious Writers of Physick, to a Man, from those Times quite down to ours, have fallen into the same Sentiments: and unanimously persued the same Design. I am the longer upon this Subject, and the more sollicitous about it, because the Professors of this Art are not intitled to any Success further than merely as they

|| *Neque enim credunt posse eum scire, quomodo Morbos curare conveniat, qui unde hi sint, ignoret.-- Eum verò recte curaturum, quem prima Origo Cause non fesellerit. Ibid.*

† *Conf. §. 35. infra.*

are appriz'd of that Knowledge. Indeed the Thing is evident of itself, and plain common Sense. Let any Man, who is guided by this, pass Judgement on the Physician who is Operating upon, Altering, or Removing a Cause, of which he has first obtain'd not the least Information: and knows not, either of what Nature it is, or where it exists in the Body. Nor can a Man well forbear admireing that there could be, at this Time o'Day, Advocates for this Practise: and such who make it their Business to expose those who inquire into the Causes of Diseases. Whatever may be the Case of these Gentlemen, They who duely apply to the Study of Nature, and to the Reading the faithfull accurate Observations of those that have gone before, can never want Light sufficient to lead them to what they are in Search of. Nor will I be brought to believe that a Gentleman of the Learning of *Dr. Freind*, can be in the Dark as to this Affair. Which makes me somewhat wonder that he should openly give out that
the

the *Causes of Diseases* are hid to us, and will probably ever be so †. This is, indeed, inconsistent with what he had formerly written: and a *Theory in Physick*, that takes not in the *Causes of Diseases*, cannot carry with it much Demonstration or Mathematical Certainty *. Then he is much in the wrong, where he asserts that *Hippocrates has not a Word concerning the Causes of Diseases*. So much, that, in almost all his Works, that sagacious Writer is searching into, and pointing forth those Causes. Particularly in the two very Books that Dr. Freind has here publish'd. In Order to the forming a Judgement, and rightly distinguishing of Diseases, amongst other Things, he directs to inquire what is voided by *Vomit*, by *Urine*, by *Stool* ||: and, under several Cases of the Fevers that he has here related, he takes Notice that the *Vomits* and *Stools* abounded.

† *Hippocrates*---*De Morbi Causis, quæ fortasse nos latent, latebuntque semper, ne Verbum quidem fecerit.* D. Freind *Præf.* P. 14.

* *Vid p. 56. supra.*

|| *Epidem. 1. Sect. 3.*

† § 14. in-
fra.

with *Bile*, and with *Phlegm*; which two very Principles he elsewhere, over and over assigns directly as the *Causes of Fevers*. I shall have Occasion to produce the Places out of him by and by †; and so shall not need to do that here. Nay it is a Maxim, with him, first || *to search out the Causes from which Diseases arise: then to go on to other Things, and to the Cure of Diseases*, particularly those that are *topical*, of which he is here treating, No Man can surely be more full, clear and express in this than *Hippocrates* is. Indeed he sticks not, very decisively to declare those * *Physicians* nothing better than *Idiots* who are ignorant of the true Cause to which each Disorder of the Constitution is to be ascribed. Nor can any Thing be more rational than this Doctrine. He who has the deepest Insight into Nature, and is the most thorowly in-

|| Ὁ γινώσκων τὰς προβάσεις, ὡς χρὴ, δεῖ εἰ
αἱ νόσοι γίνονται, ὅτι τὰ ἄλλα εἶναι αἶθε, καὶ τὰ ἀμ-
φοὶ τὰ χρεῖα ἵκναι. Hippocr. περὶ γυναικ. L. I.
Sect. 3.

* Τὸ ἐν ἰσχυρῶς--ὡς ἰδιώτας--τὸ μὴ αἶπον ἀγνοεῖν-
τας. Hippocr. περὶ ἀρχαῖς ἰηλικίης. §. 38.

form'd

form'd of the Causes to which Diseases owe their Origin, is evidently in the surest Way of Extirpating them † : and how much soever it may be vilified by those who have not consider'd, or apply'd to it, 'tis the Judgement of Ages that *Physick* will be never rightly supported without the Aid of ‡ *Philosophy*. Nor were *Physicians* * *eminent*, or their Cures considerable, till other *Learning* was join'd to that of *Physick*. Then first this Science was reckon'd a Part of *Philosophy* : and the Cure of Diseases, and the Study of Nature, took both their Rise from the same Authors. *Anatomy* was cultivated ||, and the Bow-

† 'Ο ἀεὶςα γνῶς, ἀεὶςα διεγνῶν.

‡ *Naturæ rerum Contemplatio--Medicum aptiorem Medicinæ reddit. Cels. in Præf.*

* *Nulli clari viri Medicinam exercuerunt, donec majore Studio Literarum Disciplina agitari cœpit.--Primòque medendi Scientia Sapientia Pars habebatur; ut& Morborum Curatio.& rerum Naturæ Contemplatio sub iisdem Authoribus nata sit. Ib.*

|| *Cum in interioribus Partibus & Dolores & Morborum varia Genera nascentur, Neminem putant his adhibere posse Remedia, quas ipse ignoret. Necessarium ergò esse, incidere Corpora Mortuorum, eorumque Viscera atque Intestina scrutari. Ibid.*

els

els and Intestines search'd into, with great Diligence. Nor was any one allow'd capable of Relieving the Distempers, and Disorders, of those Parts, whose Structure and Fabrick he was unacquainted with. The Noteing this is the more seasonable, because these so laudable and necessary Studies are not only fallen much into Disuse, but they who cultivate them ill treated by those who do not; which I hope will serve in Excuse of my haveing offer'd so much in Favour of the Study of Nature, of Inquireing into the Causes of Diseases: and of the Use of Rational Theories and Hypotheses.

*The
Method
observ'd
in this
Discourse*

III. For my own Part, I shall, in the Work before me, keep close to Observation, and to the Symptoms: and not presume to advance any Thing that does not appear to me to follow, as a Deduction, from them. If this be not every where so obvious, and plain, 'tis because I would not be over prolix, and tedious: and I hope, where I am most concise; closer Attention, to the Connexion, and Chain of Things, will, to those
who

IV. Some of the first Symptoms, *Of the*
the Nausea, the Sickness, the Reach- *Appara-*
ing and Vomiting, the Inflation and *tus, or*
first Sta-
tensive

IV. Some of the first Symptoms, *Of the*
the Nausea, the Sickneſs, the Reach- *Appara-*
ing and Vomiting, the Inflation and *tus, or*
ſt *Sten-*
ſive

dium, of the Small-Pox. The Symptoms. The Origin, and the Seat of them. Conf § 12. infra.

tensive Pain of the Stomach, the Cardialgia or Sense of Burning at the upper Orifice of it, the Corrosion and Tendernefs there, and sometimes in the neighbouring Parts, all point out that Organ, so plainly, for the Seat of these Symptoms, as to put the Thing quite out of Doubt. The Yawning, and Stretching, attend, come, and go, with the Symptoms before recited. The Pain of the Back, just behind the Stomach, the Straitness of the Thorax, the Oppression of the Heart, the Anxiety of the Præcordia, and the Faintness, never continue long after the precedent Symptoms recede. This shews that these depend, thô somewhat more remotely, on the same common Cause: as do likewise those of the Head. Certain Principles, of whose Existence in the Stomach Proof will be given by and by †, hot, sharp, corrosive, in great Emotion and Disturbance, offend and annoy that Organ: send up Fumes and Steams, heat, fret, and corrode the upper Orifice of the Stomach, the Seat of the Cardialgia, and render that, and the

† Conf
§ 13. in-
fra.

the contiguous Parts, so far as those Steams happen to penetrate, tender and fore: inflate and distend the Stomach so as to force up the Diaphragm, contract the Thorax, confine and distress the Heart, and Lungs: bear the Stomach hard upon the Back immediately behind it: and upon the descending Trunk of the great Artery there, so as much to compress and straiten it, and to impede the Current of the Blood downwards. By that means a greater Quantity of Blood is sent up to the Head, and to the Brain; which being thereby crowded and overcharged, there necessarily insue several Symptoms and Evidences thereof; *e. gr.* a Heaviness and Weight of the Head, with a Sense as of some new Fluid thrown in there in an unusual Quantity: a Tension of the Blood-Vessels, and Pain of the Head. Likewise a Dizziness: a Vertigo: Epileptic Insults, especially in Children, and young Persons, that, being of more tender Frame, are more easily affected. The rest of the Symptoms are a Thirst, Heat, Fever, Rigor, Hor-

ror, Sweat. These are all apparently of a Species. The Principle that causes them will be assigned presently. 'Tis indeed the same that has been already intimated, being hot, sharp, penetrant, active, and in Emotion. While 'tis in the Stomach it produces the Thirst. Passing thence, by little and little, into the Blood, and upon the Habit, it brings on there the Heat, Fever, and the other last recited Symptoms. These, and the precedent, are the Symptoms that attend the Apparatus or first Stadium of this Disease. 'Twill, I suppose, hardly be needfull to note that all of them rarely, if ever, befall the same Person. They are, in each, in less or greater Number, in Proportion to the less or greater Quantity of the morbid Principles in Emotion; of which there will be produced the Evidences in their proper Place.

*Of the
Govern-
ment of
the
Passions
under Dis-
eases.*

V. The Symptoms thus set forth, I should go on to consider the Remedyes. But first I shall take the Liberty to put in one very material Caution, concerning the Conduct
of

of the Physician, in this so nice a Case, and in which Things are ordinarily in so great an Hurry and Præcipation. Now his Master-piece, and chief Care, is to raise the Fancy, steer and rightly rule the Passions, and continually keep up the Hopes of the Patient. This is a great Art : and so necessary that the best Medicines, directed with the utmost Wisdom, in the Small-Pox, and other great acute Diseases, will prove generally ineffectual and fruitless without it. The Reason of which will be evident to those who are rightly inform'd of the Contrivance of the Body of Man : and know that the Stomach, which is the Fountain of those Principles that supply, form, and raise the Small-Pox *, is likewise the Seat of * *Con.* the Passions †. Now every un- § 5 *in-* seasonable Rouseing of them must † *Conf.* needs disturb the OEconomy, and p. 4. *supra.* regular Egres of those Principles ; upon which OEconomy, and Regulation, the Event of the Disease depends. I am the more particular in this, because 'tis certain there are greater Numbers hurried out of

Life by the Disorders brought on by Fright, Surprize, Apprehension, the Bustle, and indiscreet Shew of Concern by Relations, Friends, and those about the Patient, than by the Malignity of the Disease. From the several Phænomena, that attend Fear, 'tis certain the Pylorus is frequently closed: and so the Communication betwixt the Stomach and Blood, intercepted, for the Time. Now, the Stomach being the Source of the Matter that, sent thence, causes the Small-Pox, this lets us into the Reason why that Passion gives so great and sudden a Check to the Small-Pox: and proves ordinarily so pernicious and fatal.

*Of the
Diet: and
Drinks,
proper in
the Small-
Pox. Also
of Cordi-
als.*

VI. What I next offer shall be relating to the Diet in the Small-Pox. This ought to be exactly temperate, not heating, nor cooling. Nor should there be any Thing allow'd that is not plain, thin, and light; such as Gruels, Panada, and the like. Nothing that is gross, heavy, strong, or that may imbarrafs the Stomach. On which Account likewise it ought to be given only
in

in small Quantity ; the Reasons of which will be very manifest by and by. The Drinks ought likewise to be very simple : and temperate, not heating, nor chilling. High Cordials, strong compound Waters, and Spirits, are never to be given in Quantity, or without great Caution. Not even in case of Faintness. That is much more certainly relieved by other means : and what these contribute is short, transient, and indeed meer Amusement. But they are sure to inflame, and to increase the Fever ; a Thing of vastly more dangerous Import than that Faintness. Beer, and fermented Liquours, cannot be proper. Things in the Stomach are now ordinarily in too great Colluctation and Ferment of themselves. Nor indeed ought there any Liquids, Sack-Whey, the Harts-horn Drink, or the like, be given, but in moderate Quantity ; least, by them, the Morbid Principles, in the Stomach, be too much chill'd : diluted, thin'd, and swilled into the Blood ; whereby the Heat, and Fever, subservient to the Design that Nature is

carrying on, and to the Filling of the Pustules, must needs be quench'd, and allay'd : and the whole Frame much indanger'd. The main End of the Care and Vigilance of the Physician, in this Disease, is rightly to moderate and govern the Fever, to keep it from rising too high, or being too much depress'd : and the morbid Principles from flowing into the Blood faster than the Vessels and Organs can well * receive, and dispatch them into the Pustules.

* *Conf. §
15. infra.*

*Of the
Medi-
cines.*

VII. As to Medicines, the first Thing to be look'd to is that they be made, as far as possible, gratefull, and palatable ; the great Secret in this, and indeed in all other Diseases, being, with a just Discretion, to fall in with the Appetite : and to attend to the Claim of the Stomach. For this is the Voice of Nature : and to this both the Remedyes, and the Diet, ought ever most carefully to be adapted ; with due Observation how each succeeds : and what Face Things put on afterwards. Without great Regard of the Stomach, neither the Digestion,

tion, nor the Nourishment, can ever possibly go rightly on. Besides, the Principles of this, and most other Diseases, proceed forth of that Organ. Things gratefull to it are sure to contribute to the Appeaseing and Allaying the Disorders and Commotions there: as Things offensive are, to the Exciteing and Increasing of them. Nor can I, I confess, ever enough admire that such Quantityes of Waters, both simple and compound, and other Things should be given in Julaps, Apozems, and other Forms, that are not only ingratefull, but offensive, and some of them loathsome, even to Persons in Health, and to the strongest Stomachs. To them who reason upon Matters, it cannot certainly but appear somewhat odd that those Things which would make a Man in Health sick, should make a Man in Sicknes healthy. 'Tis of no little Importance that this Affair be carefully attended to. The next Thing to which Regard ought to be had is the Number, and Quantityes, of the Medicines. For whatever they may be, or under how-
ever

ever pompous Notions of Cordial, Bezoartic, Alexipharmac, or the like, they may pass; too many, or too great Doses, can never fail of doing Hurt. They are all of extraneous Nature : strange and unknown to the Organs and Powers of the Body. The Principles in the Stomach, during the Small-Pox, are in great Confusion and Emotion. The total Appeasing and Allaying of This, is a Thing vain : and no ways practicable. Or, if it were, Injuries to the Stomach, and to the Digestion, and consequently to the whole Frame, would follow thence, too numerous to be recounted here. Then the Principles, in Emotion, are passing into the Blood. Whatever some may fancy, and how specious soever the Titles of their Remedies may be, they, who are rightly apprized of the Delicacy of the Fabrick of the Body of Man, and the Fineness of the Mechanism of it, will give but a very few of them, while Things are thus passing down out of the Stomach into the Blood, and diffus'd over the whole Habit. When Nature has
so

so great and heavy a Task on her Hands, to increase the Burden; when she has a particular Drift and Design Carrying on, to cast in any Thing that interferes, disturbs, and offends her, cannot but be dangerous. Things that would, at other Times, be innocent and inoffensive, may now prove very pernicious. Most seasonable and excellent is the Admonition of *Hippocrates* †, on the † Περὶ
Occasion, that, in *Fevers*, the Phy- Παθῶν.
sician be perpetually on his *Guard*: Sect. 12.
exert his utmost *Skill* and *Indeavours* to do good: and take Care, that, by his *wrong Administration*, Nothing of *Harm* befall the Patient; the *Ills*, that attend the *Distemper*, being, of themselves, enough for Him to grapple with. 'Tis certainly better to wait, to observe, and give Nothing, where there is Cause of Doubt, than to venture to give What may prove wrong. 'Twere to be wish'd there were not, by the great Numbers of Medicines clutter'd in at Random, perhaps to please, or to amuse, not to mention some less honourable Ends, more Havock made, than by *Distempers*.
'Tis

'Tis but a too common Observation, even among the People, and intelligent Lookers on, that, in the Small-Pox, those who take the fewest Medicines come off ordinarily much the best: and that 'tis rare to see those escape, and recover, who take many. I shall not surely be so far mistaken as to have this interpreted a Declamation against the Art of Physick; which cannot possibly be more needed in any Case than this. In so deep and intricate an Affair, not only discreet Conduct, and great Attention, but the highest Skill and Sagacity, is requisite: and for unreasonable Intruders, and bold Medlers, there are but too many and sad Monuments of their Officiousness and Interposition.

*Of Absorbents.
Conf. § 58.
infra.*

*Of Diaphoretic,
and Alexipharmac
Medicines.*

VIII. Pearl, and the rest of those call'd testaceous Powders, calcin'd Hart's-horn, Coral prepared, and the other common Absorbents, as they serve somewhat to repress the too exorbitant Emotions of Things in the Stomach, where that happens to be necessary, may be given in moderate Doses. In smaller, Gascoin's
Pow-

Powder, Goa-stone not perfum'd, Oriental Bezoar, or Lapis Contrayerva. Given in greater Doses, they repress those Emotions too much, and imbarrafs Things in the Stomach, restrain, and in some Degree, frustrate Nature's Intention of Transferring them into the Blood. Serpentaria Virginiana, the Volatile Salt of Hartshorn, and of Vipers, and the other like hot Medicines, have a quite contrary Effect. They joyn the hot Principles in the Stomach * : * *Conf. § 13. infra.* and promote the Hurry of Things out of it; Throwing them, sometimes, in such Quantities into the Blood, as, where the Bile † happens to abound, violently to exalt the Fever: at others, where Phlegm † is more prevalent, so to croud and glut the finer Organs, and the Vessels near the Surface of the Body, that they cannot transmit the Matter to the Pustules; so that they fall for Want of Supply: and the Morbid Matter, restrain'd within, confounds those Organs, and oversets the Frame. If the Fever lower and sink too much, small Doses of these

Of
Cam-
phore.

these may be given ; but with the greatest Observance and Caution.

IX. Camphore is a Body whose Nature, Propertyes, and Effects are very imperfectly set forth. 'Tis active, volatile, subtil, penetrant, beyond Expression. They who have duely observ'd the Phænomena, and rightly attended to the Constitution of it, must have it in the utmost Suspicion. Whatever may be said of it by two or three Systematical Writers, who are wont to ascribe almost all Vertues, and the Power of Cureing any Disease, to every Simple and Drug, the Tryals, that have been really made of this, are far from affording the least Encouragement to any further Use of it.

Of A-
cids, and
Cooling
Medi-
cines.

X. Dr. Sydenham, takeing Notice of the Inconveniencies that attended the Hot Method, fell, over hastily, into the other extreme : and recommended the Cooling. Reason and Nature give really no Countenance to either. The Physician, who is steer'd by them, will make it his first Care to find out the Temperature that rightly suits the Exigence

Exigence of the Things : the Condition of the Season : and the State of the Patient. Nor will it be thought strange that a Man, of ^{the} Diligence and good Sense of Dr. *Sydenham*, should, after some Time, and further Experience, again quit that, as he had before rejected the hot Method : and fall finally into the temperate. For he gave Acids, Small Beer, and other cooling Things, but very sparingly, in the latter Times of his Practise. This I learn from Mr. *Malthus*, his Apothecary, and intimate Friend : and I am the more forward to note it because, by Dr. *Sydenham*'s Writings, Some, who attend more to Authority, and what they read, than to Nature and Things, have, in this Article, however right he may be in others, been led into a not slight Error. Tartarus Vitriolatus, Spirit of Vitriol, Juice of Limons, and other like Acids, cannot by any means be admitted in a rational Practise : nor do they ever fail of doing Hurt. They vehemently chill, and over much repress the Fever, at first : and as much exalt it afterwards.

They

They nearly approach the Nature, if they are not the very same, with the Salt, that constitutes the chief peccant Principle, in this Disease, which will be assigned on another
 † § 40. *infra.* Occasion †. Indeed they are an Order of Medicines the most foreign to the Body: and the most contrary to Nature, of any in all the whole Class of Alterant Medicines; of which I hope to have Opportunity to give Instances in a more proper Place. Of Blisters*,
 * § 29, 30. 32. *infra.* and of Bleeding, something will be offered by and by.

Of
 Oyls, and
 Unctuous
 Medi-
 cines.
 Conf. § 69.
infra.

XI. Being not well and thoroughly satisfied with the Reasons assign'd for Giving several of the Medicines in Use in this, and some other Diseases, and receiving not greater Satisfaction, or Incouragement, from what I observ'd of the Success of them, I began to cast about for Others, that might better answer the Exigencies of Nature: and was led, by some Reasons, and Reflections upon the Disposition of the sweeter Vegetable Oyls, *e. gr.* of Almonds, and the like, to make Tryal of them. What chiefly put me upon
 it

it, was their being of a Constitution so directly contrary to that sharp, hot, corrosive, Biliose Matter, that will appear, presently †, to be the main Instrument, not only of the Danger here, but of many of the other Maladyes and Ills of Life. Then I consider'd that, to those who like not to take them alone, by Admixture of Mucilages, or Pulps, or Conserves, these Oils are rendred very gratefull, and pleasant: that they are perfectly innocent, and of the Nature of Nourishment: and that there's not the least Hazard in the Use of them. The Event answered my Hopes. I was soon made sensible that they contributed greatly to the Frustrating and to the Subdueing of that sharp hot Matter, and, consequently, to the Restraining of the Fever, and of the other Symptoms, caused by that Matter. Insomuch, that, given, whenever the Fever * runs too high, they moderate it more happily and speedily than any thing else that I have hitherto light upon. Of this I had Proof in Mrs *Sidley's*, and some other Cases, that were

G

reputed

† Vid.

§ 13. infra.

reputed desperate, even by those who were unquestionably Judges. Indeed these Oils, given, in little Quantity, and at proper Intervalls, through the whole Course of the Disease, as there happens to be Occasion, greatly repress the Tumults, and qualify the Acrimony of the Biliose Salts. By which means they mitigate Pains *: as also the Soreness, and Inflammation*, of the Skin, and Surface. So that, the Patient being thus rendred easy, and the common Impediments of Quiet, and Sleep, happily removed, Opiates are rarely wanted in this Method. Which, I confess, I like well of; not careing how little I call in their Aid; nor truly is there much Use of them, in any judicious or rightly regulated Practise, where Things are put under rational Conduct in Time.

*** As the Fever, Pain, and Inflammation, that attend Quinzyes, Pleurisies, Colics, the Dysentery, and Nephritic Affections, owe their Origin to the same Biliose Matter, vitiated, and redundant, Oils commonly give these also a like great and sudden Check.

XII. When

XII. When, in the Small-Pox, the Physician has the good Fortune to be consulted in the Beginning, and soon enough for the Purpose, he has a happy Opportunity of superseding not only Opiates, but most if not all the above recited, and indeed the rest of those call'd anti-febrile Medicines: and, by Casting out much of the Morbid Matter, rendring them, in great Measure, needless: as well as securing the Ease, Safety, and Life of the Patient. They err extremely, and run a great Risque of their Lives, who lose this Opportunity; there then remaining frequently only a difficult and very dangerous Aftergame to be played. To pass over the other Symptoms; the Nausea, Sickness, and Reaching, are apparent Indications of the Need of a Vomit. And, where the Stomach is rightly prepared: the Inflation of it diminished, so that it may freely ply, contract, and expell the Contents of it: the Operation dextrously manag'd, closely and effectually pursued, the Patient is immediately relieved

liev'd, and the recited Symptoms of Affection of the Stomach, totally cease. Those of the Thorax, Back, and Head, all frequently do so too, by such Time as the Operation is well over : or at least, very much remitt and abate. The Thirst, Heat, Fever, and Symptoms of that Class, likewise considerably relax. This alone, without any further Light, shews plainly that the Principles and Causes of all these Symptoms, as well those of the other Parts, as of the Stomach, were actually resident in it ; excepting only such small Proportion as, having before escaped thence into the Blood, brought on the Fever, and other Symptoms of the Habit. Which therefore lessen also, upon the Supply from the first Source being thus intercepted, and the Course of it turn'd off by Vomiting. According as the Morbid Matter, disturb'd in the Stomach, is in greater or less Quantity, the Symptoms will be numerous or few, and more or less pressing and intense. As the Vomiting succeeds, and the Quantity of the Morbid Matter is thereby lessen'd,

lessen'd, the Symptoms lessen in Proportion: as do likewise the Trouble, and Danger, in all the following Scenes of the Disease. But, in some Bodyes, 'tis not a Thing so practical to come near freeing and clearing the Stomach, with one Operation, as those, who are less conversant with this Affair, may imagine †. To be sure the utmost Care ought to be used: and a trifling and artless Management is much more likely to enhance the Symptoms, and the Difficulties, than to diminish either. Whereas by a right and discreet Process, the main of the Business is ordinarily effected at once: and the Patient secured against any considerable future Infult; a great Part of those Principles, that bring on the second Fever, and the frequently dangerous Symptoms which attend it, that cause the Inflammation and Pains, that erode, fret, make Pitts, and deform the Skin and Face, that croud the Surface, and render the Pustules confluent, that ruffle the Frame, and bring Life into Danger, being thereby

† Conf §
16. *infra*.

cast out. So that afterwards there will probably be Occasion of very few Medicines : nor indeed of any Thing more than Care, and a discreet Conduct and Government, as to Heat, Cold, Diet, and the like. Nay, where the vitious Matter in the Stomach happens to be little, and not over tumultuous and boisterous, a Vomit, interpos'd in time, and dextrously persued, sometimes discharges, if not the Whole, so great a Share of this Matter, that the Fever ceases immediately : the Pustules, that perhaps begin to appear, come to a Stand, and vanish, their Supply being cut off by the Vomit : and the former State of Health returns. This is not said without due Support : and I have seen more than one Instance of it. 'Twas particularly the Case of *Lady Anne Grey*. After the ordinary Symptoms of the Stomach, Back, and Head, during the Apparatus ; on the Morning of the fourth Day from the Invasion, several Pimples were observed upon her Face, Breast, and Arms. I was sent for in the Evening ;
when

when they were somewhat further advanced, and appeared pretty thick. There were present several, who were really Judges, and very conversant with that Disease. Examining the Case, and Viewing the Pimples, all agreed they were the Small-Pox ; which the Fever, and concurring Symptoms, likewise attested. A Vomit, given that Evening, work'd very plentifully : and, the next Morning, there was not one Pimple to be seen, nor was there one of the Symptoms remaining. She has continued well, since, for 16 Months, to this Day. But I have seen two Instances where, the Small-Pox disappearing thus on the Operation of a Vomit, the Emotions in the Stomach have, after a few Days, recurr'd, the Small-Pox appeared anew, and gone on in the usual manner. What is deliver'd in this Section may be further illustrated and confirm'd by an Observation that I have more than once had the Opportunity of making, upon the accidentally coming on of the Small-Pox, in some presently, in others a while

G 4

after

The State of Physick:

after the Cure of a Chronical Distemper was effected and finished. On Account of which, having Occasion to make considerable Evacuations, the Small-Pox that, under these Circumstances, happened to follow, proved ever so gentle and favourable, that the Patients had need of little more Care, or Confinement, than when in perfect Health. The Pustules were, in each, innocent, and few. Thus, *Mrs. Mawson* had not above 30 over her whole Body. Nor did they leave the least Scar, or Mark, on the Skin. *Lady Glenorchy* had very few: and her Skin was not blemished at all. When yet the former of these Ladyes had them in the Year 1710, the latter in 1713; at both which Times the Small-Pox were very epidemical and fatal. Nay the ordinary Period of the Disease was hereby changed, and the Time of it shortned. For, in these two Instances, and indeed all others that I have seen, where such Evacuations have happened to be made before the Access of the Small-Pox, they came to the Height, and

and began to turn the 6th, or 7th Day, from the Eruption; which is a Day or two sooner than usual in the most favourable sort.

XIII. What is thus raised, by Vomit, being undoubtedly the very Matter that is the Cause of the Symptoms in the Small-Pox, an Opportunity is hereby given of Examining and Inquireing into the Nature and Constitution of it: and it appears to be of two kinds. The first is a putrid Phlegm: the other a biliose Matter, Sweet, or Saline, or Sour, or Bitter, or a Mixture of all. It sets the Teeth on Edge. Nay 'tis frequently so very sharp and corrosive, as almost to flea, and fetch off the Skin of the Throat, and Mouth. It rises reeking, fuming, and sometimes near scalding hot. 'Tis not every One, who falls into this Disease, that has in him these Principles to so great Excess: nor will every slight perfunctory Management raise and discover them. But, where the Operation succeeds rightly and effectually, they commonly shew themselves in Abundance, and plainly enough.

The Constitution of the Matter that is the Cause of the Small-Pox, and of the Symptoms that attend.

XIV. Dr.

The
Doctrine
of Hippo-
crates,
concern-
ing Fe-
vers, con-
formable
to this.

XIV. Dr. Freind, has now set forth an Edition of two excellent Books of *Hippocrates* : and pays a great Deference to him, very justly. Few Ages have shewn a Man of so high a Genius, Penetration, and Capacity, as he had. Nor were his Vertues, his good Nature, and Humanity, less considerable. Then his Diligence, and Observation, were so great, and accurate, that 'tis no small Pleasure to me to find so close a Conformity, of what he has deliver'd, with what I here offer simply from the Contemplation of Nature. Treating professedly of *Diseases*, he delivers it, as a Standing Maxim, that *all Diseases whatever, that proceed from Principles within the Body, owe their Origin to Bile and Phlegm*¹. He assigns these two, as the Causes of all Diseases, likewise, on another Occasion². He asserts, very rightly, that there is *Bile and Phlegm*

¹ ἅι μὲν ἐν νῆσοι γίνονται ἅπανται, αὗτ' μὲν ἐν τῷ σώματι ἐνέοντων, ἀπὸ τε χολῆς καὶ φλέγματος. Hippocrates. Περὶ Νέσων¹.

² Νεοσύματα τοῖσιν ἀνθρώποισι γίνεσθαι ἅπαντα ἀπὸ χολῆς καὶ φλέγματος. Περὶ Παθῶν. Sect.

brought into the World with the Body : that they are existent in it, ever after, in greater or lesser Quantity³ : and that each owes its *Supply*, and *Increase*, to the *Meats*, and the *Drinks* made use of⁴. As these two Principles are in all Men living, so, when they are rightly constituted, and in due Quantity, they have their Offices, and Uses, in the Body. But when they are vitiated, and redundant, they become morbid, and noxious. This Redundance he ascribes to Intemperance || very justly. As to the first Rise of the Bile, it being from the Aliment, the Stomach has the fairest Claim : and *Hippocrates* seems to pitch upon this, as the main *Fountain* of it⁵. At least he over and over⁶ represents Bile as existent in the Stomach : and he seems to imply that the *Bile* in the *Sto-*

³ Περὶ Νέσων 1. 2.

⁴ Ἡ χολὴ καὶ τὸ φλέγμα ἀπὸ στίων καὶ ποτῶν τρέφεται καὶ αἰξεται. Περὶ Νέσων 1. 22. Conf. 1. 2. & iv. 3. & 8 & περὶ Παιδῶν. Sect. 1.

|| Ἀφορισμ. 17. L. 2.

⁵ Περὶ Πηγῆς. περὶ Νέσων iv. 1, 2. Conf. L. 1. 27.

⁶ Περὶ Νέσων. 1. 27. & iv. 8.

mach, and that in the *Vesica fellea*, are of much the same Constitution, by his treating of them indifferently and promiscuously as he does ⁷. What he delivers concerning Diseases in general, he applies elsewhere particularly to a *Fever*: and asserts that this proceeds from *Bile and Phlegm* put into a *Heat*, and *beating the whole Body* ⁸. But he, elsewhere, very rightly, supposes the *Bile* to be the principal Agent: and that this, put into Emotion, and cast into the Blood, heats the Body, and brings on a *Fever* ⁹. I do not transcribe this, and some other Passages, because of their great Length. Nay he descends to *particular Fevers*, and intitles the *Bile* to the Production of these; *e. gr.* The *Febris Causus* ¹, the *Leipyric Fevers* ², the *Febris continens*, the *quotidian*, *tertian*, and *quartan A-*

⁷ Περὶ νόσων. I. 27.

⁸ Πυρετός ὃς ἀπὸ τοῦ ὅς γίνεται ἰσχύει πολλὴ ἢ ὀλέγια θερμότης. θερμαίνεται [κ] τὸ ἄλλο πᾶν σῶμα ἀπὸ τούτων. καλεῖται τούτο πυρετός. Περὶ νόσων I. 22.

⁹ Περὶ νόσων. I. 27.

¹ Περὶ παθ' xi. & περὶ διαίτ. ὅξ 34.

² Κόπκ. I.

gue³. So for the Symptoms which attend Fevers. He ascribes the Rigor⁴ to Bile, and Pblegm, especially the later, cast into the Blood: the Phrenitis to the Bile⁵: the Heartburning⁶, that sometimes attends, likewise to the Bile. The Heat of Urine he attributes, treating of the Stone, to Biliose Matter⁷. Nay the happy Crisis, upon which Fevers frequently go off, the Urine becomeing thick and turbid, he ascribes, very rightly, to Bile, and Pblegm, cast forth of the Blood, into the Bladder⁸. Nor can any Thing be more rational than that, when these two Principles, which, while in the Blood, were the Cause of the Fever, are thus cast out, along with the Urine, the Fever should, in Consequence, decline, and finally cease: and the Clearness and Justness of his Ar-

³ Περὶ οὗτο. ἀνθρ 27. & Seqq.

⁴ Περὶ νέσων. L. 1. 22. conf. Ἐπιδημ. iv. 8.

⁵ Περὶ παθ. κ. περὶ νέσων. 1. 28.

⁶ Καρδιωγμός. περὶ νέσων. iv. 13.

⁷ Περὶ ὀύρων. & c. 22, 23, 24.

⁸ Ὀκείσοισι ὃ ἐς τὴν κύστιν συρρεῖ π χολῆς, ὑρέται παχὺ Παχὺ ὃ ὑπὸ φλέγματι. Περὶ νέσων. l. 27. Confer. iv. 8.

guing is very extraordinary. Then it stands upon a firm Foundation of Nature, Observation, and Fact. For, without that, his Authority is Nothing : and, where he has not those Vouchers, or where he reasons obscurely, Nature must be the only Rule. Thus, where he speaks of the *Blood*, and *Water*⁹ or Serum, as concurring in the Production of Diseases, 'tis certain they cannot do that but as vitious Principles, a depraved Bile, and crass putrid Phlegm, are cast in, and mingled with them. So, to pass by other Instances of that, from his treating of the *Head* as the *Source of Phlegm*, and the *Spleen* of *Water*¹, 'tis plain he had not dissected, and made Observation on the Inside of the Body, with the same Accuracy that he had done upon all those Things that are turned out of it.

The
ad. Sta-

XV. In an Affair of the great

⁹ Περὶ νόσων. iv. 1 & alibi.

¹ Περὶ νόσων. iv. 2.

Delicacy, Extent and Moment, that ^{dium : or} this is, 'tis hard to be held to ^{Eruption} Bounds. I am aware I have trans- ^{of the} gress'd those which I first propos'd ^{Small-} to my self. But this Advantage ^{Pox.} there will be of it, that, so much being set forth already, there will be now less Need of further Light : and I may be the shorter in my Account of the following Stadia of the Small-Pox. In the second, or Eruption, the Scene changes, from the Stomach, to the Blood, and Habit ; the vitious Principles, the Bile, and putrid Phlegm, escapeing, and passing continually out of that Organ, into the Blood. By which means the Emotions and Colluctations in the Stomach, are exchanged for a Perturbation and Disorder of the whole OEconomy : the Nausea, Reaching, and Vomiting, for an Uneasiness and Sickly Aching all over the Body : the Heat of the Stomach, the Cardialgia, or Burning of the upper Orifice of it caus'd by the Ascent of hot Fumes, for a Heat and Fever in the Blood and upon the Habit : the Fretting and Corrosion of the Stomach,

mach, for a like Fretting and Inflammation of the Skin and Surface. Then the putrid Phlegm, passing into the Blood, is push'd forth at the Surface in Pimples; which, gradually inlargeing, and filling, become finally Pustules. In Proportion as the Symptoms of the Blood and Habit increase, those of the Stomach gradually decrease: and, finally, go wholely off, in ordinary Cases, where the Disease is benign, and the Quantity of vitious Principles in the Stomach moderate. The Symptoms of the Back, Thorax, and Head, attending those of the Stomach, go off too. Than which, there cannot be a more convincing Proof that they are all Links of the same Chain; all proceeding from the Action of the same common Principles in the Stomach. Nature is plain, simple, and direct in all her Ways; her Procedure is regular, and wholely geometrical. They, who are rightly apprized of the Frame and Structure of the Body, using due Care and Attention, will trace her Steps, descry her Motions, and regulate them

them without much Difficulty. Whereas those who are not really Masters of that Science, but Practisers meerly on Receipts: and those who have obtain'd only a Cloud in lieu of *Funo*, Schemes, and Notions, taken from Books or Imagination, instead of a true and accurate Information of the Laws of the Animal OEconomy, will be ever bewildred, in perpetual Mists of Fancy: and much more likely to put Nature out of her Way, and to do Hurt, than Good. Where the Morbid Principles in the Stomach happen unfortunately to be excessive, and in so great Quantity that, notwithstanding what is detach'd thence, and sent into the Blood, there remains still behind, in the Source, so much as yet to act, and continue the disorderly Emotions and Conflicts there, the Symptoms of the Stomach, and of the Parts affected by it, must continue of course.

XVI. Towards the latter End of the second, or the beginning of the *The 3d. Stadium, or Maturation.* Maturation or third Stadium, the Jaws and Throat become usualy
H fore:

fore: the Swallow difficult: and a Salivation arises. The Eye-Lids, Face, and Head, plump and swell. The Hands swell in like Manner. The Pustules gradually fill, break, and finally refund a Phlegmy purulent yellowish Matter. As that Colour is owing to the Bile, sent forth along with the Phlegm, the higher the Yellow is, the sooner ever the Pustules break and run. For the Bilious Salts, here, being more numerous, corrode faster, and so the sooner make Way thorough the Skin and Pustules. The Bottom of the Stomach, however tight and firm, is considerably below the Pylorus, or Pass into the Guts. But when the Stomach is strained, and relaxed, the Bottom of it is still lower and deeper. So that 'tis rarely, if ever, quite emptied. That is an Ordination of Nature: and this Organ is, to pass over all other Uses of it here, thus framed on Purpose that there should be a Restraint of the Aliment, and the Bilious Salts, the Instruments of Digestion, there, that that great Work, so essential to Life, may be
the

the more surely perfected. By means of the same Mechanism of that Organ such vitious Matter, as happens to be there, is under a like Restraint. Nor is it, in this Case, ordinarily so far drain'd forth, that there remains not behind sufficient to act a very considerable Part there. 'Tis to this that the yet continueing Inflation and Tension of the Stomach is owing: and this Inflation bearing it on the descending Aorta †, the Blood is curbed, and thereby a so much greater Quantity of it cast up to the Hands, and Parts above, the Throat, Head, and Face. Now the Blood being highly charged with Phlegm, this is thronged and deposited in the Vessels of those Parts; by which means they are plumped up, and bloated: as also inflamed and rendred sore, in Proportion to the Biliose Salts that happen to be intermix'd. The thinner Part of that Phlegm which is thus cast upon the Throat, Chops, and Parts that are furnished with Glandules, finds its Way, and runs forth, thorough those Glandules; thereby forming a Salivation. The

† *Conf. p. 67. supra.*

H 2 Phlegm

Phlegm derived out of the Blood, this Way, is all clear Gain : and the Organs eased, freed, and rescued from the Injury and Oppression of as much as is thus dismissed out. On which Account the Salivation is ever reputed a good Sign : and ought to be favour'd, and kept up, till the Symptoms yield, and Life be secure.

The 4th Stadium, or Declension, of the Small-Pox.

† Conf. § 55. *infra.*

The Accidents of this Stadium not accounted for by Dr. Freind.

XVII. As to the Declination, or 4th Stadium, if the Symptoms, depending, do now regularly abate, the Danger is over : and the Method † of Finishing the Cure, and Re-establishing the Frame easy, and obvious. But if, instead of that, the Symptoms not only persist, but become more obstinate and vehement : nay, and perhaps new Ones arise, at a Time that the Fabrick is now finally much shaken, and the Powers of the Body are reduced and impaired, the great Question is, what is to be done. Now that can never be settled, and ascertain'd, till it be first determined what is amiss. This is absolutely necessary : and indeed is the Practise of all who proceed regularly and with right

right Judgement, not only in Physick, but in every Part of Life, in Secular Affairs, in all manner of Arts. No intelligent Surgeon ever attempts to rectify a Disorder or Hurt of a Joynt, till he hath first fully fatisfyed himself, whether it be only simply a Bruise, or a Strain, or a Dislocation. Nor does a Watch-maker go about to repair a Watch, that is out of Order, and to set it to Rights, till he has found out whether the Spring, the Balance, some Wheel, or what else is amiss in it. Had Dr. *Freind*, and the learned Physicians his Conforts, taken this Course, what they have advanced had been set in full open Light : their Readers had been capable of formeing a Judgement of it, and thereby, much of my Labour superseded. As it is, however unequal I may be to such an Undertakeing, I shall, in this, as I did treating of the first Stadium, following Nature, and reflecting on the Symptoms, and Circumstances, indeavour to give such a Representation of the State of Things within, as may serve to Discover

what are the Principles and Causes of the Disorders that attend this Stadium. Because, till they be known, for any Man to go about to offer Remedyes : or to propose the Methods of Cure, that He, or Others use, must be surely too great a Paradox ; especially in a Matter of so much Consequence, and on which depends the Fate of so very large a Share of the whole Race of Mankind.

An Attempt to supply that.

† § 54. infra.

Of the Symptoms in this Stadium : their Origin and Causes.

XVIII. The Principles continuing, and the Causes being the same, the Source and Origin of them being likewise the same, as will appear in its Place †, 'tis not strange that the Symptoms, in this, should be nearly the same with those in the 1st. Stadium ; one or more of which exert themselves according to the differing Accidents and Circumstances of the Case. These are, a Nausea, sick Qualms, an Inflation of the Stomach : a Pain of the Back : a Straitness of the Thorax, Difficulty of Breathing, Anxiety of the Præcordia, Faintness. A Delirium, a Phrenitis, Comatose Affections. A Diarrhæa, a bloody Flux,

Flux. A Fever. Subfultus's or Twitches of the Parts. Suppression of Urine. A Strangury. Bloody Urine. Spitting of Blood. Of which Symptoms, those, the Manner of whose Production has not been suggested already, shall be briefly touched on here.

XIX. As to the Diarrhæa, or Looseness that sometimes happens, when the Load of the putrid Phlegm, in Turmoyle and Emotion there, is great : and the Matter towards the Bottom † of the Stomach, more putrid and vitiated than that above, finally arising, now annoys and molests it more than ever before, 'tis apt to cast it hastily into the Guts ; which flinging it successively downwards, a Diarrhæa is brought on. 'Tis not possible but that, this vitious Matter being thinn'd, agitated, and passing by the Orifices of all the Lacteals, some of it must needs enter, get into the Blood, and upon the Habit, too much overpowered with it already. Hence arises the Danger, that ever attends such a Looseness. One common Accident in this Case, is the sud-

Of the Diarrhæa.

† *Conf. § 26 infra.*

den Sinking or Falling of the Pustules. Which happens not, ordinarily, as some may imagine, from the Supply being turned off by the Looseness; but, on the Contrary, from a Charge of the vitious Matter upon the Blood, so great as to obstruct the fine Capillary Vessels near the Skin: and so to intercept the Supply to the Pustules. The main Care of the Physician, in Case of a Looseness, ought to be to support the Patient for the Time: to remove all Obstacles and Impediments of the Passage downwards, that the peccant Matter may not be hindered, and turned across into the Blood, but dispatched, as safely, and as soon as may well be, out of the Body: and finally to appease the Tumults in the Stomach, so that it may cease longer to send down that Matter. The Stopping of it in the Guts cannot but be hazardous; as it may be turned thence into the Blood. But, so far as it is practicable, the Quieting † and Settling it a while in the Bottom of the Stomach, where it had before resided, perhaps long * without

† Conf. § 52. *sub finem.*

* Conf. § 55. *infra.*

sensible Harm, till thus incited, molested, and put into Emotion, must needs be of the utmost Advantage: and serve to gain a Truce, and Time, for the Organs and Parts to acquit, relieve, and disengage themselves of what was thrown into them too fast and freely before. They who are duely informed of the immense Quantity of putrid Phlegm that, apparently, and without any other discernible Mixture, passes off commonly in such a Diarrhæa, need not be far to seek for one great Cause of this Disease.

XX. Where it happens that, along with the Phlegm, a hot sharp corrosive Bile flows down in Quantity thorough the Guts, it wounds and lacerates the tender Capillary Vessels, lets out the Blood, and so brings on a Dyfentery. *Of the Dyfentery.*

XXI. The putrid Phlegm thrown into the Blood, in greater Quantity than can be flung forth, at the Skin, into the Pustules, tho' not so great as wholely to obstruct the small Blood-Vessels at and near the Surface, some of it, being crass and thick, as also viscid, must move on, *Of the Subfultus's or Twitches of the Parts: and of those call'd Nervine Affecti- ons.*
in

in those finer Blood-Vessels, uncertainly, and so unsteadyly as to twitch and jerk them, and cause those Subfultus's that are commonly supposed to be of the Nerves and Tendons of the Muscles. They, who shall take the Pains truly to inform themselves of this Affair, will find that, in all other Cases likewise, most of those, supposed ordinarily to be Affections of the Nerves are in reality no other than Affections of these Vessels.

*Of the
Suppression of U-
rine.*

XXII. That Part of this putrid Phlegm, that happens, in the ordinary Distribution of the Blood, to come to the Kidneys, in order to be cast forth with the Urine, when it is coarse, gross, or in too great Quantity well and freely to pass, must make Glutts and Stops in the Vessels there ; so as sometimes to obstruct the Secretion in these Organs, and cause a Suppression of the Urine.

*Of the
Strangury.*

XXIII. Biliose Matter, getting thorough the Lacteals into the Blood, and the Parts within endeavouring to disengage themselves of it, and to throw it out again with the

the Urine, being hot, and sharp, must impart a Heat, and excite a Sense of Pain, in the Passages. Being accompany'd with a Vapor, proportion'd to the Bile there, this frequently inflates and distends the Bladder. By which means its Contraction, in Order to expell the Urine, is eluded : and so the Egress of this much impeded, is not wholly barr'd and stopp'd. Which happens whether the Urine, sent down, from the Kidneys thither, be in greater Quantity : or in lesser, by reason of their being obstructed by the Phlegm that likewise ordinarily enters them. Which are the several Circumstances that attend the Strangury.

XXIV. Where Phlegm is thrown into the Vessels of the Kidneys, with such Force, and in such Quantity, as to burst some of them : or, which commonly falls out, where the Biliose Salts, passing out of the Blood, that Way, are so very numerous, or so excessively sharp, that they fret, corrode, and lacerate the Capillary or fine tender Blood-Vessels, the Blood, must, of course, issue

*Of the
Bloody
Urine.*

issue forth, and so the Urine be tinged with it. They who have, by proper Tryals, inform'd themselves of the great Quantity of Bilioſe Salts,, Ammoniac, Acerb, Vi- triolic, Bitter, that come forth ordinarily along with the Urine, in this Caſe, and in the Strangury, will have no Cauſe to be ſurprized at the Havock they make in the Paſſages. Not but that the Heat, Pain, and other Symptoms, remain, commonly, ſome Time after the greater Part of the Bilioſe Salts are thrown forth. For, thoſe Salts, haveing diſſolved the Mucus, where- with the Ducts, and Paſſages, and particularly the Urethra, were be- fore ſmea'r'd over and defended: fretted the Membranes, and ren- dred them tender and ſore; even the ordinary Salts of the Urine then offend and hurt them, as they paſs, till the Parts are healed, and a Mucus, to guard them, be ſup- plied, by the Glandules, anew.

*Of the
Spitting
of Blood.*

XXV. As the Bilioſe Salts, that paſs with the Urine thorough the Kidneys, hurt thoſe Parts, ſo like- wiſe do they that paſs forth, with
the

the Phlegm, by the Way of the Lungs, Tonfils, and Glandules of the Throat, hurt these; sometimes to such a Degree as to wound the Vessels, and let forth the Blood. 'Tis to this Accident that the Spitting of Blood is owing: and what is thus spit is ordinarily so pungent and sharp as but too plainly to discover those Salts in great Abundance in it.

XXVI. It will not, I presume, *The* be judged unseasonable that Inquiry *Reasons* be made how it happens, that, the *why the* Principles and Causes being still the *Symptoms,* same, the Symptoms produced by *that* them, and, in particular, the *happen in* second Fever, are more fierce, and *this, are* boisterous, now, than ever before. *commonly,* This Inquiry is the more needfull, *more ur-* because, at this End of the Disease, *gent and* the Body has been, for some Time, *vehement* not only deprived and indeed incapable of Nourishment, but the tenderest, the most delicate, and unguarded Parts of it, attack'd and insulted by a merciless Enemy: and consequently the Danger is now greater, and the Treatment more nice and difficult. The Change, as *than those* *in the former* *Stadia.* *to*

† *Conf.*
p. 98, 99.
supra.

to Degree of Action in the Principles, I take to be owing chiefly to three Causes. 1. The morbid Principles that are lightest, and float at Top, in the Stomach, are recent, less putrid, and offensive : and those, which stagnate at the Bottom †, are more stale, vitious, gross, ponderous, and noxious. As the others, above, are pass'd off, these, finally rising in their Turn, act a Part, and produce Symptoms, as much more troublesome than those others, as they are more vitious. They, who attend to the Operation of Vomits, rightly manag'd, cannot be Strangers to this Order of Things in the Stomach : or ignorant that the most dangerous, active, and potent Principles there lye commonly deepest. 2. The Dangers that attend a Diarrhæa, in this Stadium, have been set forth already. Where it happens, as generally it does, that the Guts are stopped, Passage that Way wholly debarred : and the Vessels, and Organs, all over the Habit, are so full charged as to be now no longer capable of giving Reception,

as

as in the foregoing Stadia, to more from the Stomach, all further Egress thence is hindred. So that the Principles, restrained there, fall into greater Colluctations, emitt more Fumes, cause a more intense Inflation of that Organ, and consequently a greater Affection of the Back behind it, and of the Parts above, the Thorax, and the Head.

3. At this End of the Disease, the Frame, being thus overcharged, and the Organs pressed, by the vitious Principles, indeavours to push them off, wherever Way can be gained: and it frequently happens that some are thrown back, thorough the Gastric Vessels, into the Stomach †. Now these, falling into † *Conf. G. 56. infra.* Conflict with the Principles which were there before resident, raise new Emotions. Of this there are so frequent Instances that there can be surely no Man, conversant with this and other Distempers, so inadvertent as not to have observed them.

XXVII. There remains yet another Thing to be consider'd, which *Why the Small-Pox are* is, by what means it happens that the

so much more dangerous to some than to Others. the Small-Pox are more numerous, thick, and confluent, the Disease of longer Duration, and attended with worse Symptoms, in Some, than in Others. Now this * proceeds ordinarily from the Matter in the Stomach, the first Source, being, not only more vitiated, but in greater Quantity. This is apparent from the Symptoms. *e. gr.* A Diarrhæa, or great Looseness, sometimes precedes the Eruption of the Pustules. Or perhaps these are forced out sooner: the Face and Head swell, and the Salivation rises, in this Case, earlier than ordinary. The Fever, and the Symptoms of the Stomach, and Parts above, continue, notwithstanding the Eruption of the Pustules. These, coming finally to break, and run, make sometimes an incredibly great Discharge. Then the phlegmy Matter, being in greater Quantity, and

* I pass by, here, those Cases, where there happen unfortunately to be, before, Errors or Imperfections in the Organs: and particularly Obstructions of the Lacteals, so that the vitious Matter cannot pass freely, from the Stomach, to the Surface, to fill the Pustules. *Conf. § 69. infra.*

consequently haveing stagnated in the Stomach longer, is become more putrid: and issueing finally out of the Pustules, is more stinking and offensive. The Biliose Matter, being likewise in greater Quantity, and more vitiated, coming forth, frets and corrodes the Skin, makes Pits, Scarrs, and Marks in it. But that the Difference, betwixt the benign simple Small-Pox, and the confluent, proceeds mainly from the Difference of the Quantity of the vitious Matter, is evident from this, that, in the former, upon the Rise of the Pustules, the Stomach, and the Parts above, which are influenced and affected by it, become easy: and the Symptoms do not continue, afterwards, as they commonly do in the confluent Sort. For, in that Case, the vitious Matter is in so small Quantity as to be drain'd all off, or at least all that is in Emotion, and that molests the Stomach: and is not so much but that it may be safely and well received, by the Pustules, and Parts near the Surface. So that the interior, more noble Parts,

I

Vessels,

Vessels, and Organs, are not likewise charged, and glutted by it. But, in the confluent Sort, over and above the great Afflux to the Skin and Surface, there is still more and more continually dispatched in from the Stomach ; sometimes till those Parts and Organs are thereby stifled, and oppress'd. This the Symptoms recited point forth too plainly to need Proof. What further confirms the Doctrine here deliver'd is, that, by Evacuations, and Lessening the Quantity of the vitious Matter in the Stomach, the Symptoms and Danger are, in Proportion, lessened.

*The
Remedyes.*

XXVIII. This brief Sketch, of the Symptoms and Accidents of the 4th. Stadium of this Disease, and of the Causes of each, thus finished, I shall next consider the Remedyes, that are wont to be now added, by way of Inforcement of those mentioned in the Account of the first Stadium.

*Of Bli-
sters.*

XXIX. There are several who lay much stress on Blisters. 'Twill be too long a Digression for me here to deliver my Sentiments concerning the

the Operation of these : and the so great and frequent Use that has been made of them, of late. 'Tis sufficient for the present Purpose to note that the Ichor, which they Discharge, is of a Constitution very different from that of the Matter flung out of the Blood into the Pustules : and consequently Blisters are far from forwarding the Design of Nature in casting off that Matter. So far indeed that they must rather hinder it; for the Ichor, that they fetch out, is much thinner than that Matter : and, by their thus drawing off the thinner Fluid, the thicker must needs be rendred less disposed to pass forth. Besides, Blisters do not affect the Fountain and Source of these Disorders : and so long as the Principles, and Causes of the Disorders, remain, disturbed, in the Stomach, any Attempt to operate upon the Blood may be incommodious : and must be fruitless. For there will be, after all, a perpetual Supply from that Organ, 'till 'tis cleared : and the Principles, in Emotion, be either exhausted, or again settled and composed there.

These sometimes follow'd by Bloody Urine.
Pblebotomy, as also Camphore with Acids, used in that Case, constantly fatal.

Then there can be surely none who do not know how frequently Blisters cause the Strangury, and Bloody Urine. The latter of these, among several other Symptoms that are *irregular*, and very dangerous, Dr. Sydenham* represents as brought on, in the Small-Pox, by *Ill-Management*: and one of the Physicians, in this Confort with Dr. Freind, treating of some who voided *bloody Urine*, mentions two Means used on the Occasion. The One was *Letting of Blood*; which yet, he says, was so far from *restraineing*, that it *increas'd* the Bloody Urine: and *hastened the Death* † of the Patients. That was very obvious: and easy to be foreseen by any One duely apprized of the State of Things, in this Case, without any need of makeing Experiments. By takeing Blood out of the Vessels, there's made, besides that Waste of the Support of the Life and Strength, Way and

* *Processus integri in Morbis, &c. p. 39.*

† *Sanguinis Missio--Mictum cruentum (quoties hoc Morbo laborantes invadit) non modo non cohibet, sed auget, & Mortem in Procinctu statim accersit. Comment. p. 115.*

Room for the Descent of the sharp hot corrosive Bile, from the Stomach, that descended and was thrown into them much too fast before. Now This being what lacerated and injured, not only the Kidneys, but the whole Frame, and indeed the very Instrument of Death, 'twas certainly not hard to foresee, when let in thus, in so sudden and great a Torrent, what would follow. 'Tis true these Experiments made the Thing out to Sense: and shewed, what before was merely Speculation, to be certain, and Fact. Whether they were only of his own Trying, or likewise of some Other of his Acquaintance, it can hardly be thought, that the Patients had a very good Time of it. For my own Part, when I came rightly to consider this Practise, I could not keep out of my Mind a Remark made by *Pliny*, probably upon some like Occasion; *Discunt Periculis nostris, & Experimenta per Mortes agunt.* N. Hist. L. 29. c. 1. 'Twould be too great a Digression in this Place, or I could easily

I 3

easily satisfy this Physician that *Letting of Blood*, which he presses as so *happy*, and indeed as the *only Remedy* *, is as little proper, and not justly indicated, in Case of a *Difficulty of Breathing* coming on; tho' Death be not ever so sure a Consequence of it. The other Means he mentions, in case of *bloody Urine*, is the Giveing of *Camphore*, *twice a Day*, and *great Quantities of Acids* ||. 'Twould doubtless have been of Use, to all considerate and intelligent Readers, since there is no President, nor the Authority of any One single learned judicious Physician, that I know of, for this Practice, to have set forth the Philosophy, and Reasons in Nature, that induced him to it. They must surely be very cogent, since he himself confesses that, as certainly as used, it ended in the Death † of the Patient. What seems mightily to amuse him was, that, by it, the Symptom was taken off.

* Comment. P. 115.

|| *Camphorâ bis in Die exhibitâ, & Acidis largâ Manu propinatis* Ibid. p. 115.

† Ibid. P. 115.

Now One would be apt to think that could not well be judged much to the Patient's Advantage; since Death allwayes so certainly follow'd. I have been, more than once, call'd in, on Occasion of bloody Urine in the Small-Pox; but have never known that Symptom arise in my own Practise. Nor have I ever seen Camphor and Acids given. But, I must confess, I think that Administration must, of Course, as, it seems, it does, only change that Symptom for such as are much worse. While the Urine continues bloody, those sharp keen Salts, that must needs be so hurtful and dangerous within, are passing out of the Body, along with it. 'Tis true, 'tis by a very wrong and ill Way; but they are much better out than in. There are those that live, and some pretty comfortably, with this Symptom by Fits, for many Years; so that 'tis plain this Symptom alone is not of so very great and principal Regard. That Others may the better judg of the Reasonableness of it, I will shew, how this Practise takes off the Symptom; I mean as

† *Com. in*
Hippocr.
P. 130.

well as I can ; for 'tis deliver'd so obscurely, and imperfectly, that I am in the Dark as to many Things. I know not, particularly, whether the Acids, that he gave, were Vitriolic. In case they were, as is very likely, they being in too common Use, 'twas adding Fuel to the Flame ; Vitriol being the main Ingredient of that Bile that is the chief Agent in the present great Disasters. Dr. *Freind* has rightly and pertinently noted, in this very Discourse †, of the most virulent Humour that attends the Small-Pox, that it has the Effects of Oyl of Vitriol. But, if Juice of Limon, or other Acids, were used, the Thing comes to much the same at last. Camphore is a Drug the most volatil and active of any that I know in all Nature besides ; and such a One, coming into a human Body, already labouring under the ill Effects of too great Emotion and Action, can never do other than Harm there. Acids are of a Constitution directly contrary to Camphore ; and it must be allowed that the putting Bodyes of so perfectly different

different a Nature together, is somewhat strange. To frame a complete Judgement of them, when thus mix'd, and in Conjunction, is not easy: or indeed possible; unless the Propertyes of Camphore were better known than perhaps, in a Body of so fugitive and intractable a Nature, they will ever be: and unless he had stated and defined the Doses and Proportions of each; which he has not done. But he seems † to imply that the Fluids, † *vid.* he gave the Acids in, were in large *Loc. p 112.* Quantity. In that Case, whether *supra.* he used small Beer, Barley-Water, some kind of Apozem, or whatever else, the Camphore and Acids would be diluted, drowned, and have little Effect, unless given in very great Doses indeed. Any of those Fluids, would take up such Biliose Salts as they light upon: and these, with the Acids and Camphore, would contribute to the Attenuating of the putrid Phlegm, one great Cause of the present Disorders: and to the Swilling it, in so extraordinary a Quantity, into the Blood, as indeed to dilute and disappoint

appoint the Salts, that, wounding the Vessels, caused the Bleeding; but, at the same Time, to overwhelm the Frame, charge the Capillary Vessels, the Glandules, and finer Organs with the putrid Phlegm, so as to quite stifle the Powers of the Body, and confound the OEconomy. This is not a Thing done in an Instant; but, being given thus *twice a Day*, Dose after Dose, and by Degrees, 'tis easy for One, who is rightly apprized of the Mechanism of the Body, and the Circumstances that 'tis put under here, and is likewise capable of Judging, to foresee the Consequence of these Things: and that it must be the very same that this famous Practitioner, found constantly ensued. Not but that there are likewise other Things to be consider'd in this Administration; especially the Quenching the Fever, and Depressing that Flame, without the Assistance of which the peccant Matter cannot be cast forth, the Body be animated and invigorated, or Nature disingaged of what oppresses and confounds Her. If, by

by these Remarks, I have given any Light to this Affair, contributed to the Rescue of those who fall into these unfortunate Circumstances, merited the Thanks of the Author of this Method, and brought him to due Suspicion of it, I have my Aim. I shall now further proceed to submit to his Consideration one quite different, and indeed diametrically opposite; which, if, with due Attention, it do not ever, may yet generally succeed: Life be saved, and Death not thus constantly in the End close the Scene. In Order to this I would recommend Oily and unctuous Medicines. As Camphore, and Vitriol, are unnatural, strange to the Body: and indeed, as far as they can be brought to any Test, appear to be nearly ally'd to Poysons; so these unctuous Medicines are realy Antidotes, beneficent, amicable to the Body, and of the Nature of Nourishment. They disarm the Principles that cause the Bleeding: take up the Vitriolic, and other noxious Salts: baffle their Conflicts and Emotions: supple the Gutts and Passages, rendering

dring them slippery : and disposing the vitious Matter in them to descend, and go out of the Body. That likewise may be assisted, and furthered, by a proper carminative Clyster; which, by fetching off Wind, and removeing the Obstacles of the Passage downwards, may serve to turn the Current of the vitious Salts from off the Lacteals, the Blood, and the Kidneys, where they must needs be injurious : and to dispatch them, the natural and right Way, out of the Body. All which may, by a discreet and vigilant Physician, be done with great Gentleness: and by such Degrees and Measures, as he thinks fit. 'Tis not needful that I recapitulate: or bring together and compare the two Methods. 'Tis evident, at first View, that, in One, the Medicines are natural : in the other, quite contrary to Nature. In One, the Medicines exasperate : in the Other, they appease. In One, the Medicines turn the noxious Matter into the Blood, and upon the Habit, nay upon the very Parts that suffer and are endanger'd : in the other, they

they turn them quite off, and steer them directly out of the Body. Even the common Mucilaginous Medicines take up the Salts, defend the Membranes, lubricate the Passages, and succeed happily. Of which I had Instance in Mr. *W. Watlington's*, Mrs. *Kath. Long's*, and some other Cases, that I hope will one Day see the Light. Nor indeed have I ever judg'd this Symptom of either great Danger, or difficult Treatment: or known any one single Patient miscarry under it: nay not one that is not at this Hour alive and well. Which is a Thing that may not be wholly unworthy the Consideration of this Gentleman, or Others, if there be any besides him, who give Camphore and Acids.

XXX. I proceed to consider the other Remedyes made Use of in <sup>Of Let-
ting of
Blood.</sup> Emergencies of the 4th Stadium: and that which I shall next mention is the now so common, but which, Reflecting on Nature, and the Reason of Things, I have, I confess, ever judg'd, generally, a wrong Practise, I mean Letting Blood. 'Tis indeed

indeed certain that, by the drawing off Part, the rest having then more Room and Scope to range and circulate about in, some of the Disorders of the Habit, that proceed from Overcharge and Croud, there, become, for the present, less. But, if the Store of vitious Principles in the Stomach be not, before, near drained forth, those Disorders must, and are actually wont to recurr; a new Supply of those Principles being, of course, sent, from the Stomach, into the Blood-Vessels, in Lieu of the Blood lett out †. Which surely must be thought a Change much for the worse; Part of
the

*Occasi-
onally, of
the Drop-
sy: and of
the Asph-
ma.*

† They who are lavish of the Blood, and let it out on every slight Occasion, have but too frequent Instances of such Dispatches, from the Stomach to the Blood, in Persons subject to Indigestion, and who have much Phlegm in the Stomach and Guts. For, in them, Swellings ordinarily arise after the taking away of Blood: and they are of such a Nature as to shew plainly they proceed from Phlegm, thus transferred into it; which, being crass, inactive, ponderous, and viscous, is apt to stop and settle in the small Capillary Vessels, especially those near the Surface, and at Distance from the Action and Power of the Heart. This, beyond all other Parts, is the Case of the Feet and Leggs: and besides, when the Body is erect, the Ascent, of the Phlegm, being in a Course directly counter to that to which it is determined

the Blood, that alone sustains the Life and Strength, being drawn forth : and a Matter, so injurious to both, substituted in the Stead of it. Upon which, Inconveniencies, commonly very great, and sometimes such as are never to be remedyed, are wont to insue. Nor, till that Matter be removed out of the Sto-

terminated by its Gravity, is thereby still more impeded. Which is the Cause that these Swellings are most commonly in the Feet and Leggs. That Impediment ceases when the Body is in a recumbent Posture. For which Reason those Swellings, abate then : and sometimes go quite down for the Time. Where this Phlegm happens to be in very considerable Quantity, when returned back, out of the Leggs, into it, the Stomach becomes loaded and uneasy : and, by its being thus charged, and likewise inflated by the Fumes of the Biliose Salts that ordinarily more or less attend, it straitens the Thorax, oppresses the Breast, and so shortens the Breath. Which Symptoms relax upon the Descent of the Phlegm again into the Leggs. This I choose to note as it affords one great Instance of the Communication and Intercourse betwixt the Blood-Vessels and the Stomach †. Where the Phlegm, † Conf. § thus impacted in the Vessels, is thick stiff and tenacious, 56. infra, it renders the Part swell'd liable to pilt, and to retain such Impressions as happen to be made upon it. By its sometimes totally obstructing many of the Vessels, Passage is deny'd to the thinner serous or watery Humors. Which, when sharpen'd by some Admixture of Salts, happening to fret, break the Vessels, and flow forth, have been most taken Notice of : and so gave Denomination to this Disease ; the Word, Hydrops, implying Water.

mach

mach, and due Care taken of that Organ: till the Appetite be restored, proper Aliment supplied, and a right Digestion re-established, can any new Blood be advanced. Of which, Consideration ought to be had, if the remaining Stock be not sufficient to answer the Exigencies of Nature in the mean Time, and till a new Recruit can be obtained. For, without that, the Powers of the Body must needs fail: and Nature be soon at a Stand.

*Of O-
pate Me-
dicines.*

XXXI. Some rely much on Opiates, in this Stadium: and 'tis certain they are sometimes of Use. As the Colluctations of the vitiated Bile must needs irritate the Stomach, so the Fibres, of this Organ, irritated, twitching, and struggling, must reciprocally agitate, and promote the Emotions of the Bile. They who are apprized of the Manner of these Operations, and have duely attended to them, know that Opium, if the Bile be not in such Quantity as to overpower and subdue it, stuns and diminishes the Sense of those Fibres, and puts an End to their Struggles: and so consequently lessens the Emotions
of

of the Bile, and other vitious Principles, there. During this, the Dispatches of these into the Blood, are, if not wholely suspended, so much lessened, that the Blood-Vessels and Organs get a Truce, and Release from the before so continual a Charge upon them, wherein to unburthen and disengage themselves, by Way of the Pustules, the Kidneys, and ordinary Emunctories, of what has been so incommodeing to them. Upon which 'tis hardly credible how great a Change generally ensues. The Bile being so restrained in the Stomach, the Symptoms of the Habit lessen, and the Fever remitts. The Heat becomes more mild. The Pain, Soreness, and even the Inflammation and Ruddyneſs of the Skin, abate very sensibly. If, by this Means, the Principles in the Stomach can be, at proper Intervalls, bridled, and kept quiet, while the Habit and Organs are thus freed, 'twill be very happy. For, tho' no Physician ought to trifle and lose Time, or to rely upon these, unless he have Incouragement from
K the

the Symptoms, and a rational Prospect of gaineing his Point this Way ; for by such Loss of Time he suffers the Life of the Patient to be brought into Danger, if not cast away ; yet every wise Physician, that has due Humanity, will not unnecessarily go to storm a Distemper, and make Evacuations in a Body that hath been so long harra's'd : and is thereby so much reduced and distressed. 'Tis very wrong to have Recourse to them, where the End can be attained by milder Treatment : and the Body gain a Truce, to disengage itself, and recover Strength ; after which, Evacuations may be made more successfully and happily †.

† Conf. §
55. *infra.*
Of E-
vacuati-
ons.

XXXII. But, where all other Means fail, and the Symptoms will not strike to other Remedyes, an Effort must be made for saving of Life : and Recourse had to Evacuations. The Enemy that cannot be pacify'd and governed, while within, must, if possible, be cast out.

*Purge-
ing in this
Stadium
proposed
by Dr.
Freind.*

The Question is, what Evacuations are proper. Dr. *Freind*, and the other Gentlemen in Con-
fort

fort with him, propose a Method of Purgeing. They will have it that this Method is pointed out by Nature; because of the Diarrhæa, which befalls some few in the Small-Pox. That indeed is an Indication of remaining Load: and that Nature is yet overcharged with Something which is annoying, and which she would get rid of. But the Thing to be inquired into is whether that, which she happens sometimes to take, be allwayes the proper Course, and to be followed. In this Stadium, that at Top haveing been successively removed, the Matter at the Bottom of the Stomach comes next to rise, and flow over: and this, being more vitiated *, and noxious, and consequently ever attended with greater Danger, the Hurrying it down into the Guts, and the Passages into the Blood, in great Quantity, must needs hazard the Frame: and set Life hard; especially as Things now finally happen to be, the Body already overcharged, and the Organs languid, feeble, and near tired out. Those are very supine, inadvertent,

The Diarrhæa, which sometimes happens, urged as an Indication of Nature for that, but wrongly; it being only simply an Indication of Load.

*The turning this downwards, by Purgeing, dangerous. * Conf. p. 98 99. 10. suppra-*

Nature is not e-

*ver to be
imitated.*

*Instan-
ces in her
Casting
vitious
Matter on
a Part:*

*and in
Hæmor-
rhages.*

tent, and know little of these Things, who fancy Nature, or the Mechanism of the Body, acts constantly so steadily and rightly, that it is never put out of its Way †: but may be allways safely and fitly imitated, or the Action persued. There are indeed Crises, and Efforts of Nature, that happen to be salutary. But then there are others that prove fatal. She frequently casts noxious and morbid Matter upon an Organ in such Quantity as to bring on, not only a Tumor, or an Abscess, but an Inflammation: nay a Sphacelus, and Mortification of the Part: and consequently the Destruction of the Whole, in Case that happen to be a principal Organ, and its Action and Concurrence necessary to the Subsistence of the Whole. So there is commonly an unequal Distribution * of the Blood: and a Quantity, cast on one Part, so great as to overpower

† Did not Nature sometimes err, and act wrongly, there would be no Monsters, Deformities, or other like apparent Evidences of her Error

* Conf. p. 3, 4. 17. & Seqq. 27. *supra*.

it, probably to break the Vessels, and lett forth so much of it, that Life is brought into immediate Danger. As in an Hæmorrhage of the Nose: Spitting, or Vomiting of Blood. The common Practise, *Phlebotomy, on this Occasion, censured.* of those who fancy they imitate Nature, is, on such Occasions, to take away more Blood; even thō the Body be languishing, spent, and the Powers of it near faileing, on account of the Loss sustained already. 'Twere undoubtedly more rational to turn off the Cause of that unequal Distribution; but to be frugal of, and save the Blood, that is left, and so necessary, as well as so much wanted, for Support of Life: and that may be long enough before, if ever, it be renewed, or a Quantity of genuine good Blood supplied; where the Organs are debilitated, and impaired, to the Degree that they commonly are in these Cases. So that, if Life be not lost, the Constitution is, by this Method, frequently shattered and spoyled: and Life rendred afterwards so comfortless, and so distressed, that Death were more desirable. As a too

K 3 great

great Crowd of Blood bursts, so where it happens to be overcharged with Salts and Acrimonious Parts, they wound and lacerate the finer and more tender Vessels, and lett the Blood out. Thus it ordinarily happens where the Urine is rendered Bloody. In which Case likewise there are those who lett Blood. Where that Symptom happens with the Small-Pox, One of the Physicians of this Consult found that Practise constantly fatal *. That surely should be an Argument sufficient against it. But the Practise had been more extravagant had it been to imitate Nature, or produce an Hæmorrhage by Way of the Kidneys. Which yet is much like what they do, who, on Account of the Looseness, that sometimes happens in the Small-Pox, produce one by their Purges. Besides, there will be the less Reason for that Practise, if it be considered that the Diarrhæa is far from attending the Small-Pox constantly : and indeed not a legitimate Symptom of this Disease. Of the Cases recited by these Gentlemen there is

not

* *Comm.*
P. 115.
v. Loc. p
116. *supra*.

A Diarrhæa, in the Small-Pox, only Accidental.

not one in which a Looseness happened, unless it were brought on by their Practice, excepting only that p. 126. In which Case, by a Composition, very common indeed, but very unaccountable, Rheubarb and Diascordium, 'twas endeavour'd to lessen and restrain the Diarrhæa; an Enterprize mighty strange; there being as little Reason, or Countenance from Nature, for stopping a Diarrhæa, when once raised, as for raising one, when the Bowells discover no Disposition or Tendency that Way. For, when once the Morbid Matter is roused, and cast into the Guts; to hinder its passing, thorow them, directly out of the Body, is the sure Way to turn it into the Blood; than which Nothing can be of greater Injury or Danger. Nor ought it to be passed over, that there happens a Diarrhæa near the Beginning, in the 1st or 2d Stadium, of this Disease, perhaps almost as often as in the 4th Stadium. Now if the Diarrhæa, in this last, be construed an Indication for Purging, they had done well to have

The curbing of it dangerous.

A Diarrhæa in the 4th Stadium, whether more an Indication, for Purging, than one in the 1st or 2d.

*The
Tendency
of Things,
in the
Small-
Pox, up-
wards,
Natural
and kind-
ly.*

assign'd their Reasons why that of the 1st or 2d should not be so too; for that, as far as I can perceive, none of these Gentlemen pretend. Indeed the genuine Bent and Determination of Nature is the quite contrary Way. The Body is commonly stopped downwards, and bound, for the whole Course of the Small-Pox, where the Disease proceeds rightly and kindly: and the Flux and Tendency of Things is upwards. Even in this 4th Stadium, where the vitious Principles in the Stomach chance to be in such Quantity as not to be exhausted before, there happens ordinarily a Nausea, a Reaching, and sometimes a Pukeing: the Glands of the Throat and Mouth unload themselves in a Salivation: and the Head and Face frequently continue swelled. If Things chance to steer a contrary Course, the Symptoms, abovemention'd, recede. Nature is under Force, put to her Shifts, and quite out of her Road. Being, by the Load there, the Imbecillity of the Stomach, and the Reluctance of the Organs, hindred: and

*A Di-
arrhea, or
Tendency
down-
wards
very ha-
zardous.*

and her Disposition, to cast the Enemy upwards, frustrated, she takes the only other Course left, for the present saving of Life : and casts it down. But, where a Diarrhæa comes thus on, all intelligent Physicians judge it ominous. The Symptoms that attend it are shocking: and the Consequence, too frequently, fatal. So that One might surely well think it a marvellous Enterprize to attempt any Thing in Imitation of this, commonly, so tragical an Accident.

XXXIII. Nor, when this Affair shall be rightly considered, and the Mechanism of the Body set in a proper Light, can any One be reasonably surprized at so terrible a Result of the Diarrhæa. 'Tis true, both by that, and by Purgeing, much of the vitious Matter, that is the very Cause of the Disease, may be thrown out of the Body. But, whoever shall attempt the Thing in that Way, I will take the Liberty to tell Him,

*Purgeing
not in the
least
counte-
nanced by
Reason,
or the
Mecha-
nism of
the Body.*

*Periculosa plenum Opus Alex
Tractas, & incedis per Ignes
Suppositos Cineri doloso †,*

† Hor.
Ode 1. L. 2.
'tis

'tis like rouseing a sleeping Lyon : and that Matter, being thinned, incited, and poured out of the Stomach into the Guts at once, passing the whole length of them, and presenting it self to the Orifices of all the Laeteals, a Quantity of it, as much greater than before as the Charge on the Guts is now greater, must enter the Laeteals, and pass into the Blood. Now, if the Matter, thus getting into the Blood, chance to be in such Quantity as to overpower the Organs, impede the Action of the Parts, and so oversett the Frame, the Purgeing had been much better omitted : and I can hardly be ever brought to believe that the small Hopes of Benefit, by the Discharge the other Way, can possibly near balance the Danger in this.

*Purgeing
increases
the Symp-
toms : and
particu-
larly the
Fever.*

† P. 145.
146.

XXXIV. 'Tis certain the Symptoms of the Habit, and particularly the Fever, is ever increased by the ordinary Methods of Purgeing. Dr. Freind † himself, on another Occasion acknowledges that Purges *accelerate*

* P. 145. *I know this learned Gentleman * makes a Distinction*
169.

accelerate and heighten the Pulse: increase the Heat, and consequently the Fever. Which renders it a still greater Paradox; because he urges the Fever as an Argument for Purgeing †. Now, for the Fe- † Comm. 7.75. & seq. p. 81. &c.
ver to indicate an Operation, that he owns frequently, if not constantly, increases the Fever, is somewhat extraordinary. On the contrary, that Effect has been one, and I think a very good Reason, why former Physicians have so cautiously avoided that Operation. Nay, some there are, and those of no low Rank, who are so apprehensive of Astringents highly improper in the Small-

*distinction betwixt those Purges that only irritate the Guts, and those that likewise increase the Velocity of the Blood. I believe 'twill be hard for him to assign any, as commonly used, that do not, where there happens to be numerous bilious Salts, and febrile Matter in the Stomach, rouse, and cast them thence into the Blood: and so cause febrile Affections there. At least he can never be certain, that any of the common Purges, may not have that Effect. So that, where the Habit has already so great a Charge upon it, to give what may augment that, cannot be proper, or safe. He allows * that the stronger Purges ever increase* * Comm. P. 145.

the Velocity of the Blood: and due Attention to their Operation will soon convince any one that the slighter and gentler do that in a more eminent manner, so as to cause greater Disorders there. Conf. § 36. infra. Et Hippocr. mel. pagu. 4.

any

any Tendency of Things downwards, that they give, if not throw the whole Course of the Small-Pox, as long as the Patient lives and holds out, *Sanguis Draconis*, *Terra Japonica*, *Bolus Armena*, and other Astringents. That shews sufficiently how ill a Notion they have of any Purgeing, or a Looseness: and how studiously they endeavour to prevent it. However, theirs is an Error of the other Hand: and this Practise is very wrong. For Astringents, especially if strong, and given in too great Dose, absorb, smother, and captivate Things in the Stomach, so as to disturb the Procedure there, impede the Passage into the Blood, hinder the Small-Pox from coming kindly out, and the Pustules from Filling. The vitious Principles, thus restrained in the Stomach, are not idle: but very mischievous there. They annoy, oppress, and incommode that Organ it self: and also infest the Breast, Præcordia, and Parts above, quite up to the Brain^{*}; proving by that means frequently fatal. Of all which I had a while ago a plain In-

* Conf
p. 3, 4, 17,
§ 27. supra.

Instance, being call'd into Consultation, at the Cloſure of the Scene, in the Practiſe of a Phyſician of real Merit, very careful, and judging generally very rightly; tho', terrified by the Ills he had obſerved on one extreme, in this Caſe, he runs ſo unhappily into the other. This is written, as in Caution to others, who uſe that Method, ſo in pure good Will to him: and, when this, ſhall come to his Notice, I perſuade my ſelf, a Gentleman of his good Diſpoſition will not fail to make a right Uſe of it.

But, to return to the Conſideration of Purgeing; even *Hippocrates*, the Author on whom *Dr. Freind* has made theſe Commentaries, declares expreſſly againſt it. 'Tis true the Small-Pox were

not known in thoſe early Times. Of the Origin of the Small-Pox, and ſome other Diſeaſes of theſe later Ages; with the Cauſes of them. The Principles, from which they proceed, were the Product of the Gluttony of later Ages. The *Greeks* and *Romans* indeed had their Revels, Feaſts, and Entertainments, poſſibly greater than ours: but not near ſo frequent. Then, in the Intervalls, they were very Abſtemious,

ous, and their Diet simple, and mean. Besides that their common Drink was chiefly Water. So that Nature had Time to cast off the Charge again: and the Organs to recover themselves. Whereas the later Ages fell into a continued Course of Gluttony: and had two or three large sett Meals, ordinarily with great Quantities of Flesh, every Day. This brought on that standing Fund of Indigestion, and Load: and, in Time, of a Putrefaction consequent thereunto; to which the Small-Pox, and some other Diseases, now not less frequent than terrible, owe entirely their Rise, and Fuel. But, *thô Hippocrates* had never seen the Small-Pox, no Man ever better understood a Fever. Now, he asserts directly that *there ought not, by any Means, to be given Purges to those that are seiz'd with high Fevers* †, such as this second Fe-

*Purge-
ing in Fe-
vers con-
trary to
the Judg-
ment of
Hippo-
crates.*

† Ὅμοσι μὲν οὖν ὑπὸ πυρετῶν ἰσχυρῶν λαμβάνονται, ἔχοντες τὰτοις φάρμακα διδόναι καθαρτήρια, ἐς τ' ἂν μεδῇ ὁ πυρετός; εἰ δ' ἢ μὴ, μὴ ἐν τὸς τεσσάρων καὶ δέκα ἡμερῶν. Πυρετός γίνεται πλείων — κινεθεῖσθαι γὰρ τῆς χολῆς, καὶ μὴ καθαρθεῖσθαι. — Ὡς τὰ πολλὰ ἀπόλλυται. Περὶ οὐρμίας. Sect. 4. Confer. etiam Sect. 5. uti et Ἐπισήμ. V. 25.

ver in the Confluent Small-Pox assuredly is, *until the Fever remitts : or, at least, not within 14 Days.* For the Fever is increased, the Bile being put into Emotion, by the Purge, and not carryed out: and several very ill Symptoms arise. Nay he averrs, that this Practise terminates *generally* in the *Death* * of the Patient. This, coming from a Man of the great Experience of *Hippocrates*, of so much Exactness in making Observations, and Faithfulness in relating them, should surely have been a Warning, and Barr to this Practise. Nor can I, I confess, help being somewhat surprized that this learned and ingenious Commentator upon him, should intimate ¹ *Comm.* that *Hippocrates* gives the least ^{P. 75.} Countenance to it: and should found his seventh Commentary upon that, without producing so much as one single Instance to this Purpose out of him. Neither can I possibly bring my self to Dr. *Freind's* Opinion that Dr. *Sydenham* was not sufficiently bold † in his Administration of Purges, up-

* Conf. *Emend.* V. 9, 10.

† Non satis audax fuerit. *Comment.* P. 90.

† Conf. p.
142. su-
pra.

** Comm.
P. 87.

on the Emergence mention'd, in the 4th Stadium of the Small-Pox. For he judges rightly that the Method was dangerous: and therefore, not to be used till other Means failed, and the *Life of the Patient was despaired of* *. Nay, he was apprehensive that his very *Mentioning of Purgeing might be the means of far more Hurt than Good*; and therefore he puts in a Caution that it should not be used, till, as *Hippocrates* † advises, *the Disease was in Declension* ||. Indeed, upon the whole, I am not able to find out why they ** will have *Dr. Sydenham* to be a Patron and Voucher of this Practice. Not that it would be material, if he was. 'Tis not any Man's Example, but Reason, Nature, and the right Success of Things, by which we are to be guided. Nay the Passage brought

* *Ut jam de Ægro panè conclamatum videatur, duro huic Nodo durus Cuneus aptandus est. Sydenham. Sched. Monitor. p. 97.*

|| *Ne injecta ejus Rei Mentio longè plus Damni quàm Emolumenti apportet, agrum non esse purgandum, nisi facessente jam Morbo, &c. Ibid. p. 99.*

out of *Rhazes* † is not very clear † *Com. in Hippocr.*
 as to his Authority: and till it be p. 88.
 certain that that of *Dr. Radcliff* * *Ibid. p.*
 was more than Talk, I think these 87.
 Gentlemen have themselves the
 fairest Title, and are wholely with-
 out Competitors for the Honour of
 this Method.

XXXV. The Affair ought not *Of the*
 to be dismiss'd without some Con- *Purges*
 sideration of the Sort, and Nature, *made*
 of the Purges that these Gentle- *choice of*
 men make choice of. No Work *by Dr.*
 will ever be artfully performed *Freind,*
 where the Instruments used are not *and the*
 proper: and, in a Work of the Ni- *rest.*
 cety and Importance of this, too
 great Care cannot be taken. Now,
 were it not for the Regard I have
 for these Gentlemen, I should not,
 I confess, allow the least Claim to
 any *Aloetick*, or other hot bitter
 Medicines: nor indeed to the *Sal*
Mirabile Glauberi, or any other
 Salts; such Bitters, and Salts, be-
 ing Ingredients of the Bile: and
 the chief and most active of the
 very Principles that bring on the
 greatest Distress and Danger in this
 Disease. Which, of many that might
 be

† Conf. p.
38, &
Seqq. su-
pra.

alledg'd, may serve for an Instance of the Necessity of finding out the Causes † of Diseases. Nor, till that be done, can any Man give a Medicine with Reason, or indeed with Safety to the Patient. Then, where the Stomach is so easily offended, and will bear little, Medicines that are gross, and that answer not the Design unless given in great Quantity, such as *Cassia*, *Manna*, and *Lenitive Electuary*, cannot certainly be over suitable.

Of the
Doses of
them: and
of gentle
Purgeing.
Of the
Forms of
the Pur-
ges used
by these
Gentle-
men.

† Conf.
Comm.
p. 122.

XXXVI. 'Tis true these Gentlemen give little Doses of them; where- by, in my Opinion, they double the Error. To rouse, exasperate, and provoke an Enemy, without effectually subduing, casting him forth, and putting it out of his Power to do Harme, must needs be imprudent, and a great Oversight. I know very well the Expression of *gentle Medicines*, *gentle Purgeing* †, and the like, so frequently in some People's Mouths, passes very glib, and sounds well: and 'tis certain that the first and greatest Care of every Physician ought to be that his Operations be safe and benign; but

but that they be so likewise in their Consequences and Effects. For, without that, the rest is mere Amusement: and only doing Nothing, or Mischief; which is the Case of all Purges that are slack, trifling, and impotent*. This is not the Place, nor indeed have I Words to sett forth the many great Inconveniencies, and Disorders, even the Spoyling the best of Constitutions, that have, not immediately perhaps, but by little and little, and in Tract of Time, followed on this Practise. With what Title soever the Medicine may be graced, such Operations, and Effects, cannot be said to be *gentle*: and 'tis strange to consider how much People are ordinarily bewildred, and how easily led, by specious Words, into the greatest and most unfortunate Errors. The observeing of the ill Effects of these Operations I take to be the main Reason why some are so apprehensive of Purging. For slight Purges, not well and quickly passing the Stomach, excite the greatest Emotions and Perturbations in it. Then they

* Conf p. 159. inf.

either do not carry the Matter, which they send thence into the Gutts, thorough them, and quite out : or they do it so slowly, that there is too great Leisure allowed for it to pass the Lacteals ; whereby the Blood is charged, infected, Evils brought upon the Frame, and Injuries without Number or End. Besides, there are Forms of Medicines highly improper ; such as Pills ; which are frequently too hard for the Stomach to dissolve, when under the great Indisposition and Trouble that it is in this Disease. Nor can I properly forbear taking Notice that, in this very Commentary, *Pil. Ruffi* 3fs, prescribed by one of these Gentlemen †, produced no Stool, till enforced, ten Hours after, with *Lenitive Electuary* 3vi : and the Affair had finally an Exit, that I am not inclinable to inquire over scrupulously into. Thus likewise that small Dose of *Rhubarb*, gr. xii : given to the Boy *, seems, as might well be expected, to have been as slack in its Operation. The eight Grains of *Calomel*, with 3fs of *Lenitive*

† P. 123.

* P. 132.

tive Eleſtuary || worked not at all. || P. 95,
 Perhaps Dr. *Freind* would have given ^{96.}
 a larger Doſe, had the Thing been
 under his ſole Conduct. But
 there were joyned with him two
 other Phyſicians who were reluc-
 tant: and under great Suſpicions of
 Purgeing in the Small-Pox. Up-
 on the whole, I believe every rea-
 ſonable Man will agree with me,
 that they, who undertake in any
 Caſe to Purge, ought really to do
 that, or to let it alone: to give
 Medicines that will paſs, and go
 thorough the Body, or none at all.
 In Order to which, and to their
 Operateing ſafely and kindly, to
 be ſure there ought to be ſuch a Pre-
 diſpoſition of Things that they may
 paſs eaſily and freely; leaſt, by a
 fancyfull Eſſay to carry the peccant
 Matter out of the Body, it be
 really carryed further into it, and
 caſt upon thoſe Organs and Parts
 where it may do irreparable Da-
 mage. To which may very
 fitly be further added, that *Hippo-*
crates †, the Author that Dr. *Freind* ^{† πει}
 ſo much celebrates, averrs that Pur- ^{φαρμακον,}
 ges, which work ſlackly, or not ^{Sect. 4}
^{5. Conf.}
^{Επιδρυ.}
 at L. 5. § 10.

at all: and putt the Bile into Com-
 motion, without carrying it quite
 out, are attended with ill, and in-
 deed the worst of Consequences.
 If the Judgement of the Patient be
 taken, he will as surely be rendred
 chagrin, cloudy, faint, and great-
 ly disordered, during the Opera-
 tion of a slack and impotent Purge:
 as he will be chearfull, serene, spright-
 ly, and easy, under the Operation
 of One that is brisk and free.
 Then the Effects that follow on
 the former are as disastrous, as those
 on the latter are ordinarily good.
 This is so certainly Fact, and so
 commonly to be observed, that it
 cannot well be a Secret to any,
 but those who give only trifling
 Purges.

Occasi-
 onally, of
 Consulta-
 tions of
 Physici-
 ans. Conf.
 p. 154.
 infra.

XXXVII. But we shall be bet-
 ter inabled to form a Judgement
 of this whole Affair, if we exa-
 min a little the Accounts, that
 these Gentlemen have published, of
 the Success of the Purges given
 here in their own Practise. I shall
 begin with the Consultation which
 Dr. *Freind* has here set forth a Re-
 lation of: and which well merits
 the

the Attention of all those who are fond of Consultations. 'Twere to be wished that the Designs, the Interests, and the Accomplishments of all Physicians were the same: and perfectly right. But they are Men: and subject to the Oversights, and Passions, that other Men are. Besides, their Views, their Conduct in their Studyes and in their Reasonings, are so very different, that a Man may as well expect a compleat Picture from the united Labours of a Painter who uses Nothing but Crayons, and another who can only paint in Oyl, as the Cure of a Disease from two Physicians, whose Methods of Thought, and of Practice, are perhaps more different. Nor can there be ever the least Prospect of other, so long as Any, leaveing the Paths of Nature, have Recourse meerly to Authority; instead of Searching out the Causes of Diseases, the mechanical and proper Remedyes of them: and so Reducing Physick into the Form of an Art. In this particular Consultation, Dr. Freind was indeed put out of his Method as to Medi-

*An In-
quiry into
the Suc-*

cines;

*cess of the
Purges u-
sed in the
Cases set
forth
by Dr.
Freind,
and the
rest.*

*Rea-
sons arise-
ing thence
for Reject-
ing their
Method.*

*Of the
first Case
related
by Dr.
Freind.*

cines; but he treats the Affair, e-
very where with so much *Wit* and
Eloquence, that, had Diseases been
capable of being cured by *Oratory*,
without *Remedyes* †, the Patient
had been in a fair Way of Reco-
very. Tho', notwithstanding all
that *Eloquence*, the Arguments, for
and against Purgeing, are managed
with that Equality, that had I had
the Honour to have been Modera-
tor, I should have been perplex'd,
more than ever in my Life, to find
out on which Side rightly to have
determined the Matter; I mean pro-
ceeding on the Foundation that
Things stood there amongst them.
Only, I confess, where Dr. *Freind's*
two Opponents so expressly declare
that they had tryed that Method
of Purgeing, continually without
good Effect ||, I should as frankly
have decided against their ever Pur-
geing more, as against the giving
Camphore and Acids, in Case of
Bloody Water in the Small-Pox,

† *Itaque Ingenium & Facundiam vincere:
Morbos autem non Eloquentiâ, sed Remediis cu-
rari.* Celsus, in Præfat.

|| *Comment. P. 81.*

when the Patients so certainly and constantly died after it †. The^{† Comm.} Purge that was first agreed upon,^{p. 115.} after long Tuggings, and numerous Disputations, in this Consultation, was *Sal mirab. Glauberi* ʒi. in *Decoct. Sennæ Gereon.* ʒiv. & *Aq. Cinamomi Hord.* ʒvi. There cannot possibly be any Doubt, but, on the Coming of a Medicine, of so peculiar a Composition, and made into so very large a Draught, into the Stomach, the Manner of the Action of the Principles there would be changed; which must needs, as it did, produce a Change in the Symptoms: and, besides the Perturbations that must attend it, the so great an Evacuation, as this Purge actually made, must produce a no less Change in the Animal OEconomy. But was this of any real Advantage to the Patient? The very next Day they found *all Things had taken a Turn*, and were altered, much *for the worse*: and the Fever particularly was become more vehement than ever *. Info-

*Feb. 18. *Omnia in deterius ibant. Febrisque præsertim acrius exarsit.*—*Vesperis, cum ultra Spem adhuc Vitam traheret, &c.* P. 84.

much that, *when*, returning in the Evening, they found him then alive, 'twas what they had no Hopes of. Where Dr. Freind is describing the State of the Fever, this Day, *acrius exarsit*, is, I persuade my self, a most accurate Expression: and justly setts forth the Effect of a Medicine of so great *Acrimony*, and so *ardent*, as the *Sal Mirabile Glauberi* is. Nor am I forward to believe that this was a Medicine of Dr. Freind's Proposeing. Where three Physicians are joyn'd in Consultation, I wish I could say it were common to have amongst them a Harmony so thorow that a Composition was, ordinarily, pitch'd upon, in which any one of them was perfectly satisfyed and easy. I shall rejoyce that this Remark have it's proper End: and the good Effect for which it is designed. They who rightly attend to Dr. Freind's Account of this Consultation will be far from judging such Cautions, as this here put in, wholely needless. But, to proceed with the Consideration of the Success of this Method of Purgeing; I cannot but
own

own he must be a great deal more adventurous than I, who, after a Change so much to the Disadvantage of the Patient, should ever think of persisting in that Method. But yet, *Feb.* 21st, with eight Grains of *Calomel*, $\frac{3}{4}$ ss of *Lenitive Electuary* was given, without producing one Stool †; which is not † *Comm.* greatly to be wonder'd at in so P. 96. slight a Dose. In the Evening a Clyster was injected: but made little Discharge. He had a very restless Night after it: his Head was much disturb'd: and he appeared to be at the Point of Death. The next Night, the same Things, being repeated, were follow'd by three Stools: and, the Morning after, the Symptoms of the Head and Nerves were ceas'd. But, how much soever this might be construed in Favor of the Operation, by those who are fond of it, his Pulse was feeble, his Strength exhausted: and the next Day he dyed. I shall be far from suggesting that this might not have been the Issue, whatever Medicines had been given: of what kind soever the

the Purges had been : and whatever the Dose. But I think it may very modestly be said that there can be Nothing collected, from the Success here, in Favour of the Purging Method.

Of
Browne's
Case.

† Comm.
P. 100.

XXXVIII. The next Case is that of---*Browne*, P. 98 : and, with the greatest Respect to Dr. *Freind*, I intreat him to take Notice that after the xvi Grains of Extr. Rudii, given to this Patient, the Delirium and Convulsions continued as high as ever †. Infomuch that the Dr. thought it needfull to apply Blisters : and direct a quieting Draught. Notwithstanding which, those Symptoms kept their Ground : and continued in full Force the next Morning. I confess, I could not, after that, have imagined, if it was judged reasonable to persist in Purging, and to make choice of a Medicine so slow in Operation, tho so bulky, as *Lenitive Electuary*, for the Purpose, so small a Dose, as ʒss, should have been directed : any more than I could be surprized that, the very same Evening, the Fever, and all the other ill Symptoms, should

should be, as they were, after the
 takeing of it, increased *. Info-^{* Comm.}
 much that the Dr. thought it need-^{p. 100.}
 full here again to apply more Bli-
 sters. But, after some Time, in the
 Night, the Powers of the Body¹,
 thus doubly incited, exerting them-
 selves at once, rose upon the Ene-
 my, with such Effort as to fling
 forth near 30 Stools in 4 Days. If
 the Quantity of the Matter, thus
 discharged, and the odious putrid
 Constitution of it ||, be rightly re-^{|| Ibid.}
 flected on, 'twill soon appear how^{p. 100.}
 hazardous it must needs be to rouse
 and stirr such, without takeing great
 Care that it steer the right Course,
 and be speedily and effectually cast
 quite out of the Body. Of which
 yet no Man can ever be absolutely
 certain. This is manifest, 'twas
 to the so great Quantity discharged,
 that the Recovery of the Patient
 was owing. Which may serve for
 an Intimation, from Nature, what
 is really to be done if this Method
 be persued rightly.

¹ Being vigorous in a Young Man, as, tho his
 Age be not mentioned, from the Event I collect
 this was.

Dr. Freind's
clear, and
full: but
the other
Accounts
perplexed
and de-
fective.

XXXIX. I come now to the Accounts of the other Gentlemen in this Confort: and could have wish'd theirs had been as full, and distinct, as Dr. Freind's are. For, then, equal and indifferent Lookers on would have been able to have judg'd, for themselves, of what now they must take on Trust, in the Lump, and on general Assertions. Not that I am going about to call in Question the Candour of the Authors; but the more distinctly and amply any Truth is delivered, the more it is to the Advantage of the Proposer, and the better Title it has to Reception. These Matters are not so much in open Light, that 'tis easy ever to make a ready and certain Judgement of them. Where several Medicines are given, and an Effect produced, it is not always so obvious and easy to assign to which of them that Effect is owing. Had these Gentlemen been more particular in their Relation of the whole Process, their Readers might then have judg'd together with them: and been satisfi'd that what they ascribe to their favorite Operation,

ration, was really its Due, and not the Right of some other Medicine given, or perhaps the Work of Nature.

Not that the Perplexity, and Darknefs is here such that there are not some Threads whereby to guide our selves: and some Sparks of Light, which, tho' few, may serve to give Insight enough into this Method.

Particularly in the Case † of that Lady that had *three Crops, of the Small-Pox*, rising successively one after another: and an *Exulceration continued, on all her Limbs*, to so unufualy long a Time as *the 28th Day*; infomuch that there was, indeed very just,

A strange Case, in which there were three successive Crops of the Small-Pox.
† *Comm.*
p. 125.

Cause of Apprehension of a *Gangrene*.

I observe a *gentle Purge* was given her on the *12th Day*: again on the *15th*: and, afterwards, at every 3 or 4 Days Distance, the Purge was repeated, to the End of the Disease. The Thing I would gladly know is, whether this Physician, who allows this *Repullulating* of the Pustules to be very *rare*, can give one single Instance of its ever happening where there were no Medicines given. I would likewise

† Conf.
p. 146. &
seqq. su-
pra.

* Conf. §
50. infra.

Πείρ
φυσικ.
Sect. 16.

wise know, whether the successive Stirring of the Seminium of the Pustules in its Source, and thus flushing it thence into the Blood, and upon the Habit, by such gentle Purging †, did not really produce those successive Crops of Pustules: and also contribute to supply, from still the same Source, continually, the Corrosive Matter that was the Cause of that so long *continued*, cruel, and dangerous *Exulceration*. Finally, whether one proper Vomit *, given, instead of the Purge, the 12th Day, and rightly managed, had not intercepted the Supply, in that very Source, cast it out, and so put a happy End to her Distress and Danger; preventing all those violent and terrible Symptoms that followed. 'Tis true, in this Way, she would not have had Proof that she had a Constitution so very tough firm and tight, as, in that, 'tis made plainly appear, and 'twas indeed well for her, that she had. *Hippocrates* † very rightly observes, that wherever *Phlegm, mixt with sharp Humors, comes forth*, it fails not to *exulcerate the Parts*. That was

was truly the Case of this Lady : and if her Physician please to attend to what, in this very Work, Dr. Freind has noted, it may, 'tis to be hoped, be an Inducement to him to deliberate anew, to study, and think further of these Affairs. Dr. Freind gives an Instance * of a Hu-^{* Comm.}mor, attending the Small-Pox, so ex-^{P. 130.}cessively sharp, as to be, of all others, the most likely to make *Ex-ulcerations* of the Parts, on which soever it happens to be cast : and that actually *erodes the Skin as if Oil of Vitriol was pour'd upon it*. Then he declares † that no Medicine more powerfully turns off Humors than a Vomit. He subjoyns a very pertinent Instance of their *Revulsive Power* in their so frequently subdueing Pains of the Hips, and *Œdematous Tumors*, after other Revellent Medicines have been tryed long, and in vain. The Morbid

† Nulla prorsus Medicina humores potentiùs avertat, quàm quæ Vomitum ciet : cujus sanè in revellendo Vis ex hoc satis intelligitur, quòd scilicet Coxarum dolores, atque Œdemata, sæpiùs expugnet, alijs frustra diuque tentatis revellentibus. P. 50.

Matter, in some hardy Bodyes, is, in Quantity, far more than will ever be suspected by those, who have only a superficial Knowledge of these Things : and, where 'tis thus stirred, cultivated, and managed, the Small-Pox and other Diseases may be, not only rendred more harsh and cruel, but prolonged and spun out much beyond what will easily be imagined. Nay and perhaps both the Patient, and Physician, not conscious how these Things are brought about, well pleased all the while : and in mutual Admiration each of other. 'Tis most certain, in this Method, the Patient will be made duely sensible that he has gone through real Ails : and been sick in earnest. Whereas a wise faithfull Physician, who, takeing the Cause in the Fountain, throws it forth at once, and, by his so nipping the Disease in the Bud, saves the Frame, comes off frequently without Praise, or perhaps any Notice at all. In this Way so little is felt, by the Patient, that he may be apt to think little has been done. When it falls out that

the

the Body has Strength, and the Organs Power, again to free and disengage themselves of what is thus irrationally charged in upon them: and, particularly in the Small-Pox, to fling it to the Surface, and form new Pustules, Life is thereby saved: and 'tis wonderfull to observe what a Scuffle Nature sometimes makes, in her own Defense, when thus hard press'd. Were it not for that, the necessary Consequence of this Practise is too obvious, and apparent to need Explanation.

Thō they, who shall rightly consider the Affair, must allow that the Physician I am here treating with has made so great Advances in the Art, of *Repullulateing* of the *Small-Pox*, that no Man here can ever pretend to vye with him; yet he is vastly outdone in it by a forreign Practitioner¹. For,

in the very same Way, by Means of gentle Purges, frequently repeated², he kept on the Pustules, successively *repullulateing*, Crop after Crop, for a full Year and half³. Dureing which Operation the Patient doubtless had a fine Time on't: and 'twas, according to the vulgar

¹ Dr. Si-
dobre, de
Variolis.

P. 201.

² Frequen-
tibus ca-

tharticis

(blandis)

Ibid.

³ Per Ses-

quian-

num pul-

lularint.

Ibid.

Proverb, Fight Dog ! Fight Bear ! betwixt the Physick and the Constitution ; till finally the latter luckily got the better. Nothing ever so thorowly disposes a Man to Humanity, and the Passing an Equitable Judgement upon Others, as the Bringing him rightly to reflect on Himself. If these plain obvious Notes have happily that Effect on our Physician, it cannot fail to turn greatly to his Good and Advantage. Such Reflection will be sure to render him somewhat more gentle : and place him once again on the Level with those his Contemporaries, to whom his own Fancy has rendred him, at present, so severe, and so vastly Superior. Not that he is, to do him right, much more favourable to those who have gone before, and particularly the Physicians of the last Age ; how bright soever their Character may have hitherto been, or how great their Esteem, with even the best Judges. Thus Dr. *Willis*, who, on account of his Searches, and profound Knowledge, in Anatomy, Pharmacy, and Physick, has stood
hitherto

hitherto in the highest Rank of the Physicians of *Europe*, with this Gentleman is no other than a meer *Utterer of Words*, without any *Knowledge in Physick*¹; thô he has not been pleased to produce any Instance, or so much as one single Proof of this so heavy a Charge. He has taken a like Liberty in his Treatment of my late dear Friend, *Dr. Richard Morton*, a Person of not less illustrious Merit, and One of the most eminent, learned, and experienc'd Practitioners of his Time. But, this Gentleman is pleased to ridicule² his Method, and his Reasoning, about the Conflicts that he imagines happen betwixt the *Animal Spirits*, and the *morbid Venom*, in the *Small-Pox*; com-

¹ *Superfuisse Authori [Willisio] Verba, defuisse Medendi Scientiam. De Imperio Solis & Lunæ in Corp. hum. Præf. p. 25.*

² *Mortonus, dum in committendis cum Veneno Morbido Spiritibus Animalibus totus est, ita calidissimis Alexipharmacis, Copiis, si Diis placet, contra Deleterium hostem Auxiliaribus, assidue pugnat, ut novas in Sanguine Turbas cieat, & accendat quam reprimere debuit Febrem; hinc ille ipsæ, quas adducit, Historiæ palam faciunt, plerosque, quorum Curam habuit, Ægrotos aut excalescitos interiisse, aut saltem quædam præter, evasisse. P. 120.*

pareing it, in Scorn, to the Ingagement of Armyes. Which very Way of Reasoning, notwithstanding, he has himself used. In a Style very lofty, and far from common, he tells Us of *Confusion makeing the Representation of several Species to the Mind* : and then proceeds to *inquire what Alteration of the Body made by the Venom* [of the Tarantula, for 'tis of this that he is treating,] *can be the Occasion of this Disorder and Tumult in the Nervous Fluid, which excites in the Party infected such surprizeing and almost contradictory Representations* ¹.
¹ Of Poisons, p. 66. He talks likewise of *the Fluid of the Nerves being immediately altered by the Venemous Juice* ² : of a *wandering and irregular Motion of the Nervous Fluid* ³ : of a *Hurry and Confusion of the Spirits* ⁴ : of a *Secretion of the Spirits* ⁵ ; with a very great deal more of like Sort. Nay, thô he is pleased to offer these his Notions and Theories as *new*, and *uncommon* ⁶, he takes them from the very Authors that he uses with so great Indignity, from Dr. Willis, Dr. Morton, and others. Then

Then he takes them merely on Trust; without ever going about to advance any one Argument that there are really *Animal Spirits*, or any such Thing as a *Nervous Fluid*, in the Body. Nor hath Anatomy, or any Phænomenon of Nature hitherto observed, afforded the least Reason to admitt the Existence of Either. And yet that *Account* which he is pleased to style *Mechanical*, and which, there being Nothing truly *mechanical* in it, he might just as properly have styled *Musical*, is founded chiefly upon the Supposition of both. He employs them in every Action, and Office, of Nature. He marshals, commands, and detaches them forth upon every Alarm. Why he should not allow others, especially those who first rais'd, and from whom he has taken them, a like Liberty, 'twill not be easy to find out. But thô these Troops, and this his Military Discipline, be only borrowed, such is the Conduct here, that the original Authors are much out done. I will not be brought to believe, that Dr.

† *Com-
mentis
Philoso-
phicis,
Præf. p.
xi.*

* *Fabulas
Medicas.
ibid.
|| Sermo-
nem—
inquina-
tum, &
Verborum
quasi
Monstra.
Ibid.*

v *V. Loc.
p. 107 su-
pra.*

3 *See Dr.
Freind's
Comm.
p. 145,
146. Conf.
p. 138,
139 supra.*

Freind can ever design to decry any discreet Philosophical or Medical Studyes. But, if he had this Performance in View, when he was railing of *Philosophical Fancies* †, and *Medical Fables* * : as also when he was so much out of Humour with a *Diction* so impure, and such *Monsters of Words* || : all who have read this Piece must allow Dr. *Freind* judges here well and rightly. But, to proceed with the Consideration of the Author's Usage of that truly great Physician, Dr. *Morton*; Besides his Ridiculing of his Method, he condemns it, in a Manner very positive; tho' he alleges not any one single Reason against it. He accuses Dr. *Morton* of raising, by his Medicines, new Disturbances in the Blood: and increasing the Fever, which he ought to diminish¹; without ever going about to propose the least Instance or Argument of either. Whereas, 'tis certain Fact, and appears from Experiment³, that his own Method, of Purgeing, does both: and so falls evidently under the Accusation that, without Proof, he brings against

gainst Dr. Morton's. What he next offers is, that even Dr. Morton's *own Accounts*, of which he hath not thought fit to produce any one, *make it plain that very many of the Patients of whom he had the Care, either actually dyed overheated by his Medicines, or escaped very narrowly, with the utmost Peril of their Lives, and so as by Fire* †; being pleased to bring in the Words of the Sacred Writer * into this Scene of Censure and Ridicule. For my own Part, I cannot forbear, after all, thinking it much the same Thing whether the *Disturbances in the Blood, and the Increase of the Fever* be caused by imaginary *Alexipharmics*, or by imaginary *Cathartics*. All the Difference will be that, in the latter Method, the Thing is done in a more evident, sudden, and violent Manner. Then, whether the Way of *Excalsfaction*, or that of *Exulceration*, be preferable, is another Nicety too great for me to decide. He elsewhere passes a very hard, and indeed ill grounded Censure, upon the whole Faculty, I think, for he does not distinguish,

† V. Loc.
p. 307. *supra*.
* 1 Cor.
3. 15.

or make any Difference. He remonstrates that the † Sick were now tortured, in not only one Way: and that 'twas oftentimes uncertain which of those Tortures proceeded from the Disease it self, and which the Medicines, prescribed in an improper Manner, brought on. However that may be as to Others, I'm perswaded all, without haveing Occasion of Looking further than to what he himself has here set forth, will agree that Things are not so abstruse and uncertain in this Physician's own Practise. But, to proceed; this his Treatment of the other Gentlemen of the Faculty, brings naturally to my Remembrance a like Procedure of *Theſſalus*, a Practitioner of Old, famous for * running down all the Doctrines that

† *Cum non uno modo torquerentur jam Ægroti, & incertum saepe esset quinam ab ipso Morbo ducerent Originem Dolores, quosve afferrent ingesta perverso more Pharmaca. De Imper. Solis & Lunæ. P. 59, 60.*

* *Theſſalum—delentem cuncta Majorum placita: & rabie quâdam in omnis ævi Medicos perorantem. Plin. Nat. Hist. XXIX. i.*

had obtained before: and, with a sort of Rage, declaiming against the Physicians of all Ages. Well were it for the Memory of this Gentleman, and some Compensation for Qualities so enormous, were there on Record some good Thing he had done: had all Antiquity transmitted to us the Memory of so much as one Medicine he had found out, one usefull Truth he had advanced, or any single Proposition of Service in humane Life.

XL. The next Case I shall take Notice of is that of a Youth † of 11 Years; who happening to have 3 Stools, on the 9th Day, this was judged an Indication for Purgeing: and ʒi. of *Rhubarb* given him that very Evening; which moved him 4 Times the next Day. Being repeated on the 11th it mov'd him 5 Times, and, repeated again the 12th, 3 Times. On the 13th, the Dose, now increased to ʒss, produced 5 Stools. On the 14th he had Two. How this continual Purgation comported with him, and what Condition he was in, the Relator, here, joyn'd in Consultation with the

A Case attended with a Mortification.

† *Comm. p. 130, 131.*

the Gentleman last treated with, to whom he every where shews great Complaisance, leaves wholely in the Dark: and has not one Word about it. But, for the two following Days, the 15th, and 16th, he is more explicite: and declares the Patient passed them with the utmost Uneasyness, and no Sleep at all †; which 'tis mighty natural to believe was very true. The Fever, he says, was not, with all this, in the least abated, but indeed rather increased; for the Pulse was become higher*; a Thing that happens very commonly on Purging ||; especially where much of the vitiated Bile, thinned, stirred, and roused, escapes into the Blood. This, in him, Dr. *Freind* compares to an Oyl of Vitriol: and very fitly; for it differs little, if at all, from it. Certainly the greatest Ravage, and Depredation, that is ever made on humane Nature, is by a Salt that all my Observations and Experiments shew so like Vitriol in its Effects, and so nearly allyed to that Acid Salt, as not to be, by any Means, distinguished from

† *Comm.*
p. 131.

* P. 132.

|| *Conf. p.*
138. *su-*
pra.

‡ P. 130

from it. I the rather choose to note this here, that the Patrons of Acids may well weigh and consider it, before they proceed further in that Practise. As Vitriol is a very high Corrosive, and its Tendency, when redundant, and exorbitant, to the Destruction and Dissolution of the Part, wherever it happens to be fixed and lodged, no One can well wonder that the next Day, the 17th, his Heel, at the Bottom, should be mortified to the very Bone, as as it seems it was. But, † *neither did this so very bad an Accident deterr us, so the Relator proceeds, from our Method. For tho', if we consider the Mortification, no Method could perhaps seem more forreign than that of Purgeing, yet, when the Restauration of his Strength was put upon this, that his Body should be kept*

† *Neque Casus hic satis acerbus nos ab Instituto nostro deterruit: nam quamquam, si Sphacelum spectemus, nulla magis aliena fortasse videatur medendi Ratio, quam qua Purgatione instituitur: tamen cum Virium Redintegratio in eo jam erat sita, ut modicè flueret alvus, non fuit quòd, superveniente etiam Sphacelo, ab hoc Auxilii Genere desisteremus. P. 132.*

moderately open, 'twas concluded, even tho' that Mortification was come on, that we should not desist or quitt this Method. That was assuredly mighty right, and but a Peice of Justice, if the Purge had before brought on the Mortification, to make it take it off again; just as one Cold is said to drive out another. Or as the Physician, that doubtless lead and ruled in this Consultation, in a *Discourse of Poisons*, contends, that the Flesh and Fat of the Viper is rendred salutiferous, and an Antidote¹, by the very same Means that, he elsewhere contends the Sanies of that Creature is rendred noxious, and venemous². So likewise he asserts³ the Eating Flesh is a Preservative and Security against the Plague; which, just before⁴, he had intimated was a great Cause of that very Distemper. But, to pass over this, certainly a Prowess, like that shewn in these Prescriptions, no Distress, not the highest Danger *detering* them, had deservedly rendred these two Gentlemen Heroes equal to *Hercules* and *Theseus*, had they

¹ P. 29.² 34.³ P. 54.⁴ P. 174,

175.

⁵ P. 173,

174.

they thus ventured their own Carcasses : or had the Risque and Hazard been of themselves. But, as the Case was only

— *magnum alterius spectare Laborem* †,

and the whole transacted

†† Lucret. L. 2.

— *tua sine Parte Periculi* †,

whatever their Patients may, they themselves must not, on Account of these Exploits, expect to have a Place, allotted them, with those ancient Heroes, amongst the Stars. 'Tis not a little to the Praise of his Constitution that this young Gentleman recovered; when others have very unhappily miscarried. Dr. Morton ** mentions one in the Small-Pox, that, being gently purged with a bitter Decoction, had the Fever thereby increased: and a Mortification brought on, attended with a cruel Pain of the Parts,

** *Alvum Decocto amaro leniter subducendam jussi. At inde—Calor hecticus augebatur, donec tandem Claviculâ, Osse Humeri & Tibiæ sinistræ à Veneno latitante Carie affectis, &c.—atroci Dolore partium, &c. D. Morton de Variolis, p. 480, 481.*

and

and extending even to some of the *Bones*; which were rendred *carious*, and *black*; Parts of them exfoliating and starting off, daily, till the Patient dyed †. And yet that Purge was not given till after the 20th Day. But, the Small-Pox not coming out, nor filling, kindly, much of the vitious Cause remain'd in the Stomach and Guts; which, being turn'd, by the Purge, upon the Habit, produc'd those dismal Effects. He has an Account of another that, after the giving a gentle Purge ††, became suddenly worse: and an horrible Gangrene * soon shewed it self on the lower Jaw, and on the left Leg, that could, by no Aid of Physick or Surgery, be curbed, till it had put an End to *Life*. 'Twas on that Consideration and the observing of such Consequences of it, that moved this Author || honestly to put in a Caution about this Practise, above 20 Years ago; Time surely long enough for the Thing to be sufficiently published and known. But, indeed, *Hippocrates* had, many Ages before, censured Purgeing in Case of a Mortification.

He

† Ibid.

†† Lene
Catharti-
cum. Ibid.
p. 482.
* Gan-
grenam
horren-
dam. ibid.

|| Ibid. p.
319, 320.

‡ Anno
1694.

He mentions a Person that had a Tendency to a Sphacelus in his Hip, to whom two Purges were given; he dyeing a few Hours after takeing the second. This great Writer's Judgement on the Case is, that the Patient *seem'd* in Condition to have *born* the Disease for a long Time, had he not been cut off by the *Purge* ||. On which Account, where there is Danger of a Mortification, and, in particular, of a Sphacelus of the Bone of the Heel, the very Thing that these Gentlemen had under their Care, he prefers Vomiting, recommending *Hellebore* *, the white Kind, as *Galen* and *Fæsius* rightly observe and interpret him, then of common Use in Vomits. Dr. *Freind*, in his 4th Comment, censures the Giveing Vomits, especialy those that are *very strong* †, in a Pleurisy, as *contrary to a Pre-*

|| Ἐδοκεῖ δ' ὅτι πλείονα χρόνον δι-
 ηλκεῖν, εἰ μὴ καὶ ὁ φαρμάκου πρὸς ἰσχύον.
 Ἐπιδημ. V. 7.

* Περὶ Ἀγμῶν §. 12.

† Vomitoria--Valentissima. Dr. Freind Comm.
 p. 50.

N

cept

|| *Contra*
Præcep-
tum Celsi,
ibid. p. 50.

Περὶ
Νόσων
L. 5. §. 17.
Conf e-
tiam §. 6.
Et 9.

cept of Celsus ||. When yet even the strongest Vomits have been given in very dangerous Pleurisy's, not only safely, but to the Rescue of the Patient, and the Saving of Life; which, in all Probability, could never have been effected without the Assistance of that Operation. Besides Dr. *Freind* might well have balanc'd the Authority of *Celsus* by that of *Hippocrates*; who, both in a *Pleurisy*, and a *Peripneumonia*, directs ¹ equal Parts of *white Hellebore*, *Thapsia*, and *Elaterium*; which, as *Bartolettus* long ago noted upon this Passage of *Hippocrates*, are the strongest Vomits ². But, after all, if *Celsus* be their Rule, these Gentlemen are certainly very wide of it here. For, treating of a Mortification, or Gangrene, he advises ³ Things that are *astringent* and binding; which has been generally followed by the most intelligent Practitioners, both Physicians and Surgeons, ever since. These Gentlemen would do well

¹ *Vomitoria validissima.* Bartoletti *Method. in Dyspnæam.* L. 5. c. 12. p. 513.

² *Celsus.* L. 5. c. 26. §. 34.

to consider what there is, in Reason, or Nature, that can countenance a Practice so directly contrary as theirs is. 'Tis true there are those who give, how rightly I shall not here go about to inquire, a Lenitive Purge before the Use of Astringents; but I believe these Gentlemen will hardly find one Example, in the whole History of Physick, of such a continued Succession of Purges as they us'd. I consider the Case here simply as a Gangrene; but the Patient having at the same Time the Small-Pox, renders the Practice more extraordinary: and I should have thought that so dangerous a Symptom, arising, to express the Thing in Terms as gentle as may be, upon that so unusual a Practice, should have put them to a Stand: and *deterred* them from all further Proceeding in their *Method*. More might be offered from their own Accounts, but this doubtless will be thought sufficient. Passing therefore thus over the Declarations and Assertions of these Gentlemen themselves, and their Complaisance to

this their own Practise, the Instances, that they have laid in any tolerable Light, make clearly against them: and serve to discover the Error and Inconvenience of their Method. Had they been pleased to have reserved those Declarations: and, instead of them, given us the whole History of Fact, and their Instances, like those of Dr. *Freind*, in full Light, we might have seen further into this Affair. Nor is it to be supposed that they would have been kept from Displaying these, in all their Circumstances, if there had been found in them any Thing conducing to their Purpose. They appear too warm, and zealous for their Hypothesis, ever to conceal or withhold any Particulars that might furnish Arguments in Favour of it. If, in interpreting the Facts that they have represented, and forming a Judgement, so contrary to theirs, I am mistaken, that will easily appear. This I am sure, I have been very carefull in considering them: and have here delivered my Sentiments

ments with the utmost Faithfulness.

XLI. But, after all, if, as they make plainly against it, their Accounts had afforded some Instances in Favour of Purgeing in the Small-Pox, they had nevertheless been delusive: and far from coming up to the Point in Question. Surely these Gentlemen could not be so far overseen as not to observe, what must be obvious to every Looker on, at first View, that their Instances are of Children, and young People. Excepting two Women of 30 or 40 Years, none of the rest appear to be arrived at Age, or full Growth. They are therefore styled here, *Boys, Girls, Youths*: and the Ages assigned are of 5 Years, of 11 Years, of 13, of 17: and the very highest is of 18 Years. Whereas certainly the true Tryal of Skill, and Test of the Goodness of their Method, had been on Men advanced in Age; the Small-Pox being not near so dangerous to Children, and Persons so very Young. So far from it that, where there is a discreet Conduct of them, as to

Had their Method been really Successful, that no Proof of the Goodness of it; their Instances being chiefly of Children, who run not near so much Risque from the Small-Pox, as Men in Age.

Heat, Cold, Diet, Rest, and the like, they do not ordinarily miscarry, thô they take no Medicines at all. Their Bodies are in their Prime, Nature fresh, and the Parts growing. The Organs are ordinarily less incumber'd: and without Clog, or Obstruction. The Morbid Matter is not so far vitiated, not so exuberant, boisterous, and tumultuous. 'Tis much more easily brought to Discipline, and under Government: and more within the Reach and Power of Medicines, if any be needed. Children are not, like grown Persons, apt to hawk, raise Phlegm, spit, and favour the Course of Things upwards. Nor are they so subject to Stops in the Guts, or to be costive: and therefore a Diarrhæa is more common to them. The rather, because their Guts are more sensible, yielding, and obedient to the Impulses of Nature. The Resistance and Contrast being thus, in them, less, the Danger must needs be so too. These Gentlemen themselves observe * that a Diarrhæa, in Children, during the Small-Pox, is so far

A Diarrhæa, and consequently Purgeing, not so dangerous to Children as to Men grown.

far from being of any ill Import, or Hazard, that 'tis rather of Benefit. They might, for that very Reason, well conclude that Purging is not of near the same Danger in them as in older Persons, especially Men.

As to Women, their Bodies, being commonly tender, delicate, and fine, will not bear so great a Charge of vitiated Humors as those of Men, especially of the more hardy Fabrick: and consequently the Bodies of Women are usually more clear and free. Then Nature has Shifts, and Ways of disengaging her self, in them, that she has not in Men. Besides they are more sensible of their Condition, more carefull, observant, and steady: as well as more dextrous in Helping and Relieving themselves, than Men ordinarily are. So that these Gentlemen should not have given Instances of only a Woman or two, or of a few Children, and Boys: but of Men in Age; of which they have not produced one Example. Consequently had the Method proved clearly successfull in the Cases that they have alleged, this

Of Women.

would have fallen far short of a Proof: or answering the End for which they are proposed.

*This
Method
persued
only in the
Cooler
and more
favou-
rable Sea-
son.*

XLII. Besides, so far as can be collected from Accounts so imperfect, their Experiments were made in Seasons of all others the most favourable: in Winter, or the Beginning of the Spring. *January, February, and April,* are the only Months mentioned. Whereas, every Body knows how much more rife and dangerous Fevers are, if not in Summer, certainly in Autumn. So that they should have given us Instances of Success in those Seasons. Those had been the proper Times of Tryal. I will not take upon me to say that this was allwaies the Case, tho' there be no Instance of other in their Accounts; but, if their Reason for not giving Examples of the hotter Seasons, and of Men in Age, was because they had none, all those, treated in this Method, in the hotter Seasons, or in Age, miscarrying, they have dealt very partialy: and 'tis great odds but what they are so forward to intitle these Operations

tions to, was wholly the Work of Time, and Chance : the Kindness of the Season, and the Goodness of the Constitution in Youth. Those two Circumstances, concurring, might contribute to the Saveing of a Patient, that an unfit Operation, without their Concourse, might have proved fatal to. These Gentlemen, I hope, want not to be told, that no right Judgement can ever possibly be past in any Case where all Circumstances are not set forth : and, in a Thing, of the Price and Moment that the Life of Man is, they could never have been too particular. Or, if they will judge in Gross, and by the Lump, in Partiality and Fondness to a new Method of their own, they can have no Cause to think it amiss, that Others bring the Thing to the Test anew : and scan it over again, more deliberately than they themselves, appear, at least, to have done.

XLIII. Be that as it will, the Authors every where celebrate this Practise : and are in the highest Raptures and Transports about it. *The high Opinion that these Gentlemen have*
The

enter-
tained of
their own
Method.

The Gentleman, who makes use of Camphore and Acids †, tells Us *, that by this Method of Bleeding, and Purgeing, he has known many snatched out of the very Jaws of Death. Whatever may be thought of his Style, and Expression, on all other Occasions, it must be allowed that here he very properly uses a Poetical Phrase, *Orci Faucibus ereptos* ||. Another of these Gentlemen, on whom I have had Occasion to make the most Remarks, is very full, and highly possessed of the great Excellency of this Method : talks of *dayly Experience* : and *innumerable Examples* : but is pleased to say, out of these, he will *select only a few*. 'Tis not to be thought that these, so selected, were such as made the least of all to his Purpose : and, if the rest made less, he certainly did well and wisely to reserve them. Indeed there are so

† Conf. p. 118. *supra*.

* Comment. P. 118.

|| Ibid. P. 118.

† *Ex innumeris Exemplis quæ mihi quotidiana Experientia suppeditat, Pauca tantum seligam, ut quomodo hæc Medicina ad varios & difficilimos Casus accommodetur, ostendam.* Ibid. P. 123.

few, here, in all, that these Five Gentlemen have given us the Cases of no more than Eleven, who, it cannot be said were recovered by this Practise, but who outlived it. To proceed. The Gentlemen last mentioned avers, with what Justice let every one judge, *this Method † of Cureing*, for so he is pleased to style it, *hath succeeded assuredly so happily* with him, that he concludes his Account with a kind of *Manifesto*, setting forth, *that he thinks it for the Advantage of all Mankind that it be published.* Nay, tho the Act for Licensing Books be expired, there is prefixed, to the Title of this, a License, with the Names of three of these very Gentlemen to it, they being, this Year, Censors of the College of Physicians, declareing, in a Form very lofty, that they *judg this Book*, containing what Dr. Freind. and they themselves have here

† *Mibi certè ita feliciter cessit hæc Medendi Via, ut humani generis interesse putem, ut illa publici Juris fiat.* P. 127.

They
have not
given the
least Hint,
but that
all were
cured who
were
treated in
that Me-
thod.
Tho there
be no Rea-
son to be-
lieve it
attended
with such
Success.

jointly wrote, *most worthy* to be printed and *published*. Nor does one of all these Gentlemen mention the Miscarriage of any single Patient, under this Method, where thoroughly pursued; and if it was attended with such Success, 'tis surely what never attended any Method before, nor will ever hereafter. Dr. *Freind* has, much for the Honour of *Hippocrates*, and the Asserting of his Integrity, taken Notice † that, of 42 Patients that pass'd his Care in Fevers, he frankly and plainly acknowledges 24 dyed. And yet Dr. *Freind* justly represents him, as a Man of so great Knowledge and Sagacity, that if they were not otherwise to be had, all the Indications of the Cure of acute Fevers might be retrieved from his Writings||. Now these Gentlemen must be reputed vastly superior to *Hippocrates*, in every Respect, if all, treated in this their Method, re-

* *Librum hunc cui Titulus, &c. dignissimum censemus qui in publicum prodeat.*

† *Comment. P. 10.*

|| *Ibid. P. 10.*

covered: and, if they did not, as I am persuaded will, one Day, but too plainly appear, then these Gentlemen have not dealt with the Candour, and Frankness, that was requisite in an Affair of so great and general Concern. For such a Concealment, on the one Hand: and, on the other, such Panegyrics, as they set forth of it, may serve to lead other Practitioners into a Method that there is Reason enough to think is wrong, and likely to prove very unfortunate to them. This is the true and only Motive of my entring thus far into Particulars: and being so solicitous to shew the Consequences of it.

XLIV. Had this Method been, *Of the* really, so universally successfull, there *late fre-* ought to have been given earlier *quent Mis-* Intimations of it; especially at a *carriages.* Time that such unusually great *in the* Numbers have fallen Sacrifices to *Cure of* this Mercyless Distemper. It ap- *the Small-* pears from the Bills of Mortality, that there dyed, the latter End of the last Summer, and in the Autumn, of the Small-Pox, 60, 100, nay 125 *Pox.* in

in a Week: and 2427 in the whole Year. This I think is obvious enough to be observed, that the Small-Pox cannot be said to have decreased, or the Numbers, of the Dead of this Disease, in the Bills of Mortality, to have lessened, since the bringing in this new Practise. If we fix the *Æra* of it to the Year 1709, which is the earliest Date set forth in these Commentaries, there appears by the Bills of Mortality to have dyed of the Small-Pox 1024 that Year. But, in the very next, there dyed 3138; which is above Triple the Number: and indeed, I think, more than was ever known to have dyed here of that Distemper, either before, or since. Now this Year was the chief Time of their Practise, so far as Judgement may be made from this Commentary; in which, I have had Occasion to complain more than once, that, excepting what Dr. *Freind* has written, Things are huddled up: and not sett forth so particularly and distinctly as was requisite. There is but One Case of the Year 1709.

The

The rest are of the Year 1710. The whole Number of the Deceased that Year was 24620. Whereof, as has been intimated, 3138 were taken off by the Small-Pox. So that, thô, to the Diseases, Consumptions, Convulsions, and all the rest, we add those that were Still-born, those that dyed of meer Age, or by some Casualty, *e. gr.* that were drowned, killed, and those that were executed, more than $\frac{1}{8}$ of the whole Number fell by the Small-Pox. A Thing, thô really true, so surprizing as not easily to be credited. This at least shews there is but too much Reason for Inquiring into the Causes of this strange Havock: and Indeavouring to restrain it. For these Gentlemen, if they will not reckon this so very great sudden and disproportionate Increase of the Number of those that dyed of the Small-Pox, upon their Entering on this New Method, an Argument of the good Success of their Practise, I shall not insist upon it as an Argument of the contrary.

*The
Increase
of Dis-
eases in
London.*

XLV. This is certain that *London* has been much less healthy, of late, than heretofore : and Diseases generally more mortal. These last eight Years there have dyed of the Small-Pox 14928. In the eight Years immediately foregoing, *i. e.* from the Beginning of the Century, to the Year 1708, inclusive, there dyed but 8386 ; which is not much more than half the Number ; there haveing dyed 6542 more in the last, than there did in the first eight Years. The Measles have been at a Stand : and pretty near equal. But the Article of Fevers in general, is much enlarged ; there dying, in the last eight Years, 4839 more than in the precedent. The Spotted Fever is increased by 757 : and the Purples are very near doubled. There being a continual Increase of the Number of the Inhabitants of the Town, by the Access and Settlement of new Families here, the Births, these last eight Years, are indeed increas'd 2503. But the Burials are increas'd 13554. Which, being in a Proportion greater than 5 to 1, must needs be allow'd

allow'd to be a strange and very astonishing Increase of Mortality. Then, for those that do not dye, they live generally more unhappily than heretofore: and their Complaints, Infirmityes, and Diseases, are much multiplyed. To pass over the Venereal Affections, which are more frequent than ever, Vapours, and other Disturbances of the Head, Chagrin, Melancholy, Lassitude, Faintness, that Indisposition lately named a Fever of the Spirits, those called Nervine Affections, Disorders of the Stomach, the Collic, Pains of the Back and Limbs, and many other Ails, and Complaints, are in the Mouths of almost all, Men, Women, and Children; even those that are up, abroad in Business, and the Affairs of the World; which consequently are thereby much impeded, and interrupted: Life rendred a Burden, and oftentimes miserable. Such a Torrent of Death, and of Disasters, cannot but much startle and alarm those, who duely regard and observe these Things. 'Tis what we are all greatly concerned in: and

O

indeed

indeed requires the Interposition, and Care of the Government ; the Good, the Happiness, and Security of the Subjects so greatly and generally requireing and claiming it.

*The
Causes of
this.*

XLVI. Nor, in Order to the Redressing so great and extensive a Greivance, can any Thing be more seasonable, or of higher Importance, than the Discovery of the true Reasons, and Causes of it. Tho' this be not a Place wholely proper for such an Undertakeing, yet, of meer Humanity, and Compassion to my Country, thus languishing and suffering, I cannot forbear briefly to point forth the main of them : and they are reducible chiefly to two Heads. 1. Error in Diet, and the ordinary Conduct of Life. 2. Error in the Administration of Medicines.

*1. Er-
ror in Di-
et, and the
Conduct
of Life.*

XLVII. Our Error in Diet consists partly in the Nature and Sort of it : in high Seasoning, strong Sauces, Pickles, new Dishes, new Modes of Cookery, brought amongst us by the Foreigners that have come over, in so great Numbers, for about

bout 30 Years past. The so frequent Use of Chocolate, of Coffee, Limonade, Punch : but more especially of Tea, drank, now, in so great Excess, all over the Kingdom ; to the Neglect of the much better and more wholesome Products of our own Country, the Mispending our Treasure, and carrying it even to the most distant and remote Parts of the World : or to the Exchange of our own usefull Manufactures, not only for Trifles, and Things of no real Use, but for such as are detrimental, and injurious. To these Sauces, and these Liquors, our vertuous, wise, stout, healthy Ancestors were Strangers. By the former, Intemperance and Excess, is promoted : and consequently, in Tract of Time, an Indigestion brought on. By the Liquors, Way is made for a fresh Appetite, and new Charge ; these Swilling the Indigestion, and vitious Contents of the Stomach, into the Blood, casting them upon the Habit, and Organs of the Body. Hence the great Increase of the Stone, Gout, Rheumatism, Nervine and other Affections.

O 2

fections. To this so constant and settled a Course of Gluttony is owing the late great Multiplication of Pastry-Cooks in the City; there being now perhaps Ten for One a few Years ago. Their Shops and Houses are more splendid and pompous, and they increase faster, not only than any one, but perhaps than all other Trades; excepting those that serve to the very same Purpose, Confectioners, Taverns, Distillers, Ale-houses, Coffee-houses, Chocolate-houses, the Merchants and Venders of Coffee, Tea, and Chocolate. The Consequence of this great Increase of the Arts of Luxury and Intemperance, are Vice and Immorality : Irreligion, Impiety : Passion, Animosity, Contention, Faction : Neglect of Thought, Studies, and Business : Mispending of Time : Ignorance : Stupidity : Poverty : Discontent : Sicknefs, Diseases. This so long and dismal a Train of Evils is not to be displayed in a little Room : and I have not much to allow it. As by Abstinence †, and

† *Sine Cerere, & Libero, friget Venus.*

with

withholding of the Fuel *, the Flame ceases, and is extinguished, an Awe, Modesty, and correct Deportment, is secur'd, and the Supply of a vitious Disposition cutt off; so, by Fullness of Bread, continual Pampering, and over liberal Incentives, 'tis cherished, and heightned. This is what every Man either feels too plainly in himself, or has Opportunity, more than enough, of observeing in others, to need Proof. Then, it animates, inflames, renders dareing, bold, proud, insolent, enterprizeing. When continued, and habitual, it clogs and crouds the Organs; indisposeing them, and rendring them unfit for their proper Action, Ends, and Offices. As even Cogitation it self depends upon these, it must likewise receive a Check in Proportion to the Depravation of the Biliose Salts, and the Failure and Impediments of the Organs. So that where there is a general Intemperance, the necessary Consequence must be as general a Doltishness, Stupidity, Want

* Οὐδὲ γὰρ ἐστὶν ἄνευ. Achill.
Tatius. L. 2.

of cool serious Reflection, and of right Reasoning. Philosophy and real Learning will be no Part, and indeed rarely admitted, in such a Scene. The Shew of them, many Books, great Libraryes, and the like, will amuse, and serve full as well. Nay the greater the Ignorance, oftentimes the better. They who are Judges, and shall look a little round into the present State of Professions, and the Sciences, will not have much Cause of Doubt of their Reluctance: or that they may not pretty generally chime in, and comport with this Module, and State of Things. Such an Ignorance, and Stupidity, with the licentious boisterous Disposition that attends it, must, of course, bring forth Notions and Principles the most immoral: as well as irrational in the highest Degree; even Atheism it self. This assuredly never begins in the Head, or in real Reasoning: but proceeds from below, and is, the Result of Sensuality. But when once Atheistical Principles are taken up, the vilest and worst of Practises become immediately

mediately honourable, right, rational: and the simple Mortals, around, that cannot so readily and easily fall into them, are derided, despised, as insipid, less refined, and of a more low and vulgar Genius. The Humor may proceed so far that the Sentiments of all, even the wisest Ages, before, may come to be rejected, and contemned: and Nothing, but what is new, and suited to such a Gust, admitted. Men so pamper'd, inflated, and full of themselves, forget their natural Frailties, and their Dependencies: and need no Deity in their Scheme. They easily break through Rules, Forms, and Establishments; contemning both the Judgement and the Example of their more modest and humble, as well as more discerning and intelligent Ancestors. Nor will there ever be wanting Minds so mean and slaveish as to concur with, to countenance, and even find out Reasonings for the Support of Principles and Practises so very heinous and unhappy. A Nation, once arrived at such a Pitch, is surely destined and ripe for Ruin, and the

† Conf. p.
4. 14. 5
supra.

worst of Fates. What will be likely to push on, and hasten this, is the Exorbitance of Passion, which must necessarily attend the Increase of the Biliose Salts, that are the Instruments † of the Passions, drawn out of the Meats eaten: and must be consequently proportion'd to the Excess of them. Then Meats seasoned, Sauces, and Things of high Savour, which make so considerable a Figure in the New Cookery, supply those Salts in the greatest Plenty. The Passions must be still more heightened by these: vitious Inclinations spurr'd on: and the Head putt into a Hurrey: Pride and Ambition incited: and a Disposition to Discontent, Resentment, Strife and Faction, brought on. As Intemperance leads naturally to the mispending of Time, Neglect of Business, and Waste of Fortune: as it renders Men, needy, desperate, and enterprising, there will be great Store of those, who will be disposed, and indeed have Occasion, to fish in Waters so troubled: and make their Advantage of the publick Misfortunes. Such an

Or-

Ordination of Things has, in all Ages, led to the Subversion of Government: or to the Dissolution of the best and wisest of Constitutions, in Church, and State. Gluttony is sure to bring on Load of the Stomach, and Indigestion: and as this, become putrid, and vitious, is, with a redundant or degenerated Bile, the Principle and Cause of all Diseases, a large and plenty-full Crop of them must needs follow.

XLVIII. To these are owing the great Numbers of Physicians, Surgeons, Apothecaries: and of the Under-Practitioners, that appear on every Hand; 2. Error in the Administration of Medicines.

Unde Eurysque Notusque ruunt, creberque Procellis Africus. — Æneid. I. 98.

'Twould be very happy, and these all well and rightly employed, was the Evil repress'd: and Diseases lessened, by their Means. But this is so far from being the Case, that they are, we see, increased: and, the more Medicines are given, ordinary,

dinaryly, the faster the Symptoms and Complaints multiply. The Body is rendred more and more languid: sett nearer still and nearer unto Death. This is a Thing of that high Importance to us all, that I could wish I might take the Liberty here to sett forth those, which, on the most carefull Inquiry, seem to me to be the Causes of it. But that will not be allowed: and I must content my self with pointing forth only the Heads of them. These are, Multitudes of unqualifyed, and of unlicenced Practitioners. The Power of the College defective: or not rightly exerted. A great Neglect of Statutes, perhaps the best, and wisest, as well as the most moral, that ever were composed. A Narrowness, Partiality, and Want of due Concern for the Honour, Esteem, and Happyness of the Community. Instead of that, Setting up Clubs, Cabals, and Combinations; with Design to supplant All who come not into their Measures. Disregard of the only true End of the Institution of Physick, the Good and Happyness

pynefs of the People. Methods of Practice that are irrational; *e. gr.* Attempts to purify the Blood, without previous Care to clear the Stomach, Guts, and Wayes into the Blood. Repreffing the Critical Efforts of Nature, checking of Excretions, and restraining vitious Principles in the Body. Laying the Stress of the Cure upon Things that only imbarafs and palliate over the Malady, for a little while; such as Opiates, the Cortex, Steel, or the like. Directing Medicines to be taken at unfitt Times, in improper Doses, without just Indications: or perhaps in such Quantity, and repeated so frequently, as to become oppressive, and an Annoyance. Giveing Medicines compounded, mixed, and in Consort, that are of different Constitution, clash with each other, and make great Confusions in the Body. Permitting Medicines that are not natural, to stay in the Body longer than while they do what they were sent down to do. Practiseing only upon Receits, without being duely apprized of the Causes of Diseases,
and

and of all that is amiss within : thoroughly informed of the Powers, Propertyes, and Action of the Medicine : or possess'd of the Methods of distinguishing, whether Things succeed rightly within or not, what Progress is made in the Cure, and when the Work is done. In all which Cases there must needs be very blind, uncertain, and oftentimes mischievous Doings. This is so very plain that every One must, of Necessity, allow it. So that, from what has been brought to any Certainty by those honest and judicious Writers, whose Labours we may reap the Fruits of, and from our own Diligence and Study, the Powers of those few plain tryed Medicines that we ought to use, should be determined, and ascertained. Then the Structure of the Body of Man, and its State in Health, should be clearly displayed, brought into open Light : and wherein it differs from that State, under each Symptom, and Disease, plainly shewn. For they, who are not thoroughly informed in these Respects, act wholely in the Dark,
and

and at Random. They have no Rule, no Compass to steer by: and have not reduced Physick into any Form of Art; practiseing merely by Guess, and at a Venture. 'Twas long ago the Complaint of *Hippocrates* † that because such pass, with those who distinguish not better, for Physicians, on Account of their Want of real Accomplishment, the Art, that is of all others the most excellent, is brought into Disesteem and Neglect. But yet such ordinarily are the most tenacious: and secure in their own Ways. Nay, how *defective* soever they may be as to real *Knowledge*, they are usually *talkative* *, ostentatious: and take all Occasions to decry Philosophizing in Practise; being as averse to the introducing of Reasoning into Physick, as some are to the admitting it into Religion. On which Account they are forward to expose and deride Those, who are makeing Experiments and Ob-

† *Nō pgs. Sect. I.*

* *Verba superesse, deesse Medendi Scientiam.*
Celsus L. I.

servations, informing themselves of the Nature of those Things that they use in Medicine, taking Pains in Anatomy, and in Dissecting of Bodies both in a healthy and morbid State. Those Gentlemen have a shorter, easier, and more pleasant Way : and indeed a surer, for their own Gain ; that commonly going along with the Noise : and, to secure that, they, with the whole Cry of their numerous Dependents, descend to the meanest Arts to blast, defame, and run down all who stand in the Way of that Gain : or who endeavour to discover a more rational, safe, and successful Practise ; Nothing tending so directly to unveil their Amusements, or shake their Tenure amongst the People. Their Artifices in Physick bring naturally into my Mind, that Theology which created heretofore so much Difficulty and Molestation to a very great, wise, and good Man ; with whose Words, on the Occasion, I shall conclude. *Res è pessimis Fontibus primum orta est. Deinde pessimis Rationibus hucusque perfecta.*

fecta. Ex Odio bonarum Literarum, & Stoliditate Monachorum, primum orta est hæc Tragædia. Deinde magnis Convitiis, & malitiosis Conspirationibus, hæc Vesaniæ Res progressa est. Quo tendant, nulli dubium est; nimirum ut, oppressis his Literis, quas illi nesciunt, impunè regnent cum suâ Barbarie.* Not but that, as there were then, under that so extensive and great Degeneracy, Divines who exerted themselves, shone forth: and, by their uncommon and illustrious Learning, dispersed those Clouds of Ignorance, and Error; so there are not wanting now, in *England*, Physicians that, with the greatest Honor, and Integrity, withstand this Tide of Corruption: and shew a Learning not inferior to that of their Predecessors; who, by means of what they set forth in Natural History, in Anatomy, and on other Subjects, have carryed the Character of the Physicians of *England* to so great Height, and with so just Applause,

* *D. Erasmi Epist. ad Gerhar. Noviomagum. 1520, ap. Struv. Ast. Literar. II. p. 107.*

over the whole learned World. Nor would they judge at all right, who, from any Part of this Representation, should inferr that *England* is, either as to Sense, Learning, or Physick, by any means inferior, or in worse Plight than her Neighbour Nations. The late tedious War has carryed the main Cause of the above recited Disasters all over *Europe*. For, besides that, in War, Learning finds little Favour, or Countenance, the Officers, after great Fatigues, hard Marches, long Watching, and oftentimes short Provision, required, when they were to be had, greater Supplyes, and stronger Liquors, than ordinary. These, being commonly Men of the best Familyes, returning Home, in the Winter, brought the Custom into their own Countryes: and, by this Means, Nations, before, the most abstemious, have been carryed to the greatest Excess of Riot and Voluptuousness. — But, such is the Nature of Man: and this Disposition is far from new. 'Twas, long ago, the Remark of a great Philo-

Philosopher † how *quickly Ill Customs steal in*, and gain Ground. *Thô Vertue be not easily attained*: and both great Government and Conduct be requisite for the makeing due Impressions of Morality; *Vices are learned, without any Tutoring, or Pains at all.*

XLIX. Haveing, as briefly as ^{The} possible, deliver'd these Intimations ^{Stomach} and Cautions, relateing to other ^{the Source} Diseases, and Accidents, which ^{of the nox-} Iious Prin- ^{ci-} hope will not be thought wholely ^{cles that} needless, or unprofitable, I now pro- ^{cause the} ceed on with the Consideration of ^{Fever, and} the Small-Pox: and what Dr. Freind, ^{the other} and the Physicians in Consort with ^{ill Symp-} him, have propos'd. It has been, ^{toms, in} I think, sufficiently shewn, that the ^{the 4th} Arguments, of these Gentlemen, ^{Stadium} for Purgeing, on the Access of ^{of the} the second Fever, are not by any means conclusive: that even their own Accounts, instead of proveing what they alledge them for, prove ^{Small-} ^{Pox.}

† *Citò Nequitia subrepat. Virtus difficilis inventu est, Rectorem Ducemque desiderat. Etiam sine Magistro Vitia discuntur.* L. Annæi Senecæ. Quæst. Nat. Lib. 3. C. 30.

rather the contrary: that both Nature and Reason are reluctant, and no Ways favour that Method: that 'tis so far from haveing any Countenance from *Hippocrates*, that his Precepts and Reasonings run directly counter to it. So that the Question, propounded above†, recurs;—In Case any be needfull, what Sort of Evacuation is to be used? To which I think the Answer is very obvious, and plain. The Stomach * is the Source of the Morbid Matter, and of the Cause of all the Dangers and Disasters in this Case. Now that Matter is to be discharged thence, and cast out, only two Ways; downwards, or upwards. For the first of these, 'tis what I have been treating of hitherto: and in particular their Method of Purgeing. All our Experience, and our Observations on the Rules of Nature, in this Affair, make clearly against it. While, in the Course of the Disease, the morbid Matter tends upwards, the

† P. 130.

* Conf. §. 54. *infra*.

Patient is ordinarily as safe, as he is ever in Danger if it turns downwards. The Mechanism of the Body makes as clearly against Purgeing. How great a Paradox it is to thin this morbid Matter: to rouse it, to send it into the Gutts: to trail it, for the whole Length of them, before the Orifices of all the Laëteals, and ordinary Passages out of the Gutts into the Blood, thorough which Passages much of this Matter, that is the Cause of all the Disasters there, must unavoidably be hurried, and the Danger thereby necessarily increased, has been intimated above.

L. Now all this is plainly avoided by Vomiting. The Matter, which is the Cause of all the Symptoms, may, in this Way, be flung directly out of the Body, by a proper Medicine, and a discreet Management; to the immediate Rescue and Relief of the Patient; without Hazard of Addition to the Blood: or increaseing the Symptoms of the Habit. Nor is Vomiting only pointed forth by the

So that Vomiting is indicated: and more proper than Purgeing. Conf. p. 160, 161. supra.

Matter being in the very Part on which that Operation is exercised, but indicated by every one of the Symptoms; the ill Flavour, and Taste, the Nausea, the Reaching: nay even by the Coma, the Phrenitis, the Oppression of the Breast, and Difficulty of Breathing. All these yield as constantly as a Vomit is discreetly administered. The Fever does so likewise; as certainly as 'tis ever increased by Purges. Even a Diarrhæa, which is an Error of Nature, and the Symptom that misleads these Gentlemen, is much the most safely and effectually turned off by Vomiting. This is so well known, and experienced in ordinary Practise, even of common Diarrhæa's, and Dysenteries, that no one can doubt of it. Indeed *Hippocrates* has, long ago, observed that *a Vomiting, that is merely spontaneous, and comes on of it self, puts an end to a Diarrhæa* †.

Of the
Management of
Vomits.

L.I. I am well aware that those who give improper Vomits, and

† Ἀπὸ αὐτομάτης ἐμεῖς ἐπιγνώμεθα,
λύει πλὴν διάρροϊαν, *Hippocrates Aphorism.*
15. §. 6.

such

such as are not amicable to human Nature: or Doses so slight that their Operation must be trifling, impotent, and, without ever Clearing the Stomach, serve only to make the Patient sick: or to disturb and rouse the vitious Principles, and perhaps cast Part of them into the Blood; producing thereby many ill ones, but not one single good Effect; such, I say, may have, by that means, put themselves out of Conceit with Vomiting: and have but too much Reason to be fearfull and apprehensive of it. So likewise may those that know not the Method of rightly predisposing the Stomach in such Sort as to render it yielding, easy, and free to the Dischargeing what it contains: or those who do not understand the way of artfully promoting and effectually carrying on that Operation. But much more those who have been wont to leave the Management of it to the Patient: or to some Assistant that has perhaps as little Skill, and is much more likely to frustrate, and disappoint, than rightly persue the Evacuation. E-

very Physician, that expects Good from it, must carefully attend, overlook and direct the Whole himself: and, if he do that, tho he give Vomitive Medicines in Cases of the utmost Difficulty, and Danger, and where the Patient is reduced to almost the last Extremity, and Distress, He will never find the least Ill arise, from the Operation, if discreetly carryed on. But, on the contrary, the Symptoms yielding; the Faintness less afterwards: the Spirits raised: the Strength augmented: the Courage inhaunced: and the whole Body rendred easyer; by Turning off, by Vomit, the Current of the ill Principles that were before continually charged upon it, and that incessantly oppress'd and hurt it. I should rejoyce that this were a proper Place, to sett forth the Particulars of this Management. But it consists chiefly in laying, as far as possible, before the Vomit be given, such Wind as may happen to be in the Stomach, and must needs hinder its Contractions, in Order to the Expelling of what is contain'd

in

in it: in the Conduct of the Drinking Sack-Whey, thin'd by Water, or such other Liquids as may be gratefull, and proper to attenuate Phlegm, so as to dispose it the more easily to ascend: in prompting the Stomach, and dextrously solliciteing the Rise of the Contents of it so quick that Nothing may pass downwards, bring on a Looseness, pollute the Blood, and affect the Habit: and finally in animateing and invigorateing the Stomach, at proper Intervalls, by means of Surfeit-Water, warm Canary, or some other like soft sweet Wine. Nothing so happily facilitates, and kindly promotes the Operation: and they that give Decoctions of green Tea, Carduus, other Bitters, Warm-Water, or any Thing else that is flatulent, offensive, and does not joyn in the same Mechanical Mode of Action with the Vomit, only pervert, confound, and impede the Operation. Whereas, when 'tis rightly and skillfully transacted, the Vomiting is ever flush, easy, and free. Nay by a proper Disposition of the Body, and Ordina-

tion of Things, before-hand, with a discreet Pursuit of the Operation, little Doses, and Vomits of the most kindly Nature, may be brought to do the Business, effectually, and to Purpose. Every wise and good Man will have the utmost Tenderness and Regard to human Nature: and attempt Nothing by Means that are rash, or may succeed ill. Indeed a Man of but common Sense will be far from being forward and precipitate in an Administration, which is, thô no ways in the least hazardous, if he has Skill, thought unpleasant, feared, and lyes under ill Imputation, among such who have been indiscreetly treated, or who do not understand it. Then 'tis what will certainly take him up, besides the Pains and Attendance, much Time, Care and Thought. Nay, 'twill lay him open to the Blast and Censure of such Lookers on as may happen to be of a busy meddling or invidious Disposition. So that, if he regard either his own Character, or his Interest, this is an Enterprize that, of all others, he should the most studiously

studiously avoid. But an honest Physician must involve himself in his own Integrity: and, when he is in open Light, and sees his Way plainly, act with due Courage, and not let Life be trifled away: acquitt his Conscience, and do his Duty; but ever with the utmost Guard: and Superintendance over the whole Affair himself. This indeed will cost him more; but his Satisfaction will be greater. They whose Hopes, I am sorry to say whose Aims, are not to cure and extirpate Diseases, but to amuse, keep People quiet, and as easy as may be under Ails, may decry all Vomits: or perhaps recommend only what they call *Pukeing* and *gentle Vomits*. Assuredly there can be none truly such besides those that answer the End of the Administration, effectually, and so as they may prove kindly, not only in their Operations, but, which is of vastly greater Moment, in their Effects and Consequences. Nature is not to be charmed, or Diseases bribed off by soft Words. 'Tis hardly credible how great Injury is done by frivolous Medicines;

cines ; even when frequently both the Patient, and the Giver, are pleased for the Time : do not consider the Symptoms that arise a while after : or perhaps ascribe them to other Causes. Not but that I have, again and again, observed, following on such Practise, Effects that have been so great, so sudden, and so evident, as not to leave any Room for Doubt what it was they were owing to. Thus I have been consulted in the Small-Pox, where there had been given, a while before, a Vomit, that was impotent, and not closely persued ; whereby the vitious Principles in the Stomach were thinned, roused : and, instead of being cast up, sluiced into the Blood in such a Torrent as could never after be stemm'd, or got a Head off ; the Patient being thereby hurried out of the World in half the Time that the most furious Small-Pox are ever wont to do it. So likewise have I known, by only a Decoction of Carduus, a slight Ague turned into a Fever, so continual, and so fierce, as to sett Life very hard : and not
to

to be brought to any Truce, by the utmost Care and Skill of three very eminent Physicians, in less than ten Days. Nor was the Patient, tho' young, in Condition to go abroad till after six Weeks. All which, 'twas manifest, had been prevented by a proper Vomit, given in due Dose, and rightly managed. Nor is it strange that by the same Error, a slight Asthma should be changed into a very surprizingly great Ascites or Dropsy †: a Pain of the Stomach, into a violent Rheumatism: what is ordinarily called a Heavyness or Oppression of the Stomach, into a deep and obstinate Melancholy; with other like cruel Accidents; of which I have not heard of one that ever happened, where the Medicine given was proper, the Dose sufficient, and the Operation rightly carryed on. Nor, in this Case, is there near the Sickness, or the Faintness, the Toyl and Difficulty, the Tedioufness, and Delay, that there ordinarily is with impotent Vomits.

† Conf. p. 126, 127. *Supra*.

So that those concerned ought to do the Business, or not to attempt it: to direct Medicines that will have Effect, and operate, or else none.

*The Vomitive
Medicines of
principal
Use.*

*Of Ipecacuanha.
Conf. p.
222, in-
fra.*

LII. The Thing next to be considered is, which, of the many in Use, are the Vomits proper on this Occasion. What I shall first men-

tion is Ipecacuanha. This is a Medicine, now, in all Hands: very manageable, and of easy Discipline. 'Tis reputed universally a Specifick in a Diarrhæa, the Symptom that these Gentlemen have so much in View. 'Twas indeed brought over, at first, under that Notion, from *Brazil*: used merely as a Remedy of Diarrhæa's, and Dysenteries: and not simply as a Vomit, till of late Years. When fresh powder'd, it operates much better than when stale. To those who care not to take it in Powder, a cold Infusion of it, for about 20 Hours, in 3 Ounces of Canary, filtred off, is no Wayes ungratefull: and succeeds, in the finer Bodyes, commonly very well. Oxymel of Squills is of old Prescription: and

*of Oxymel of
Squills.
Conf. p.
223, infra.*

has

has been long in ordinary Use. This works ever kindly, and frequently, if briskly prompted, very effectually. Besides, there are Instances of this Medicine's being accidentally diuretic, and bringing on a *Profluvium* of Urine; which proves usually a very happy and Salutary Crisis in this Case. Sometimes it raises a Spitting; but ever to very good Purpose. Insomuch that nothing is more seasonably administered, when the Spitting, that ordinarily attends the Small-Pox, happens to falter, or slacken, than this, given either alone, or with Dr. *Steven's* Water, compound Briony-Water, or the like. Oyl ^{Occas} of Sweet Almonds is also greatly ^{sionally of} serviceable to the same Purpose, ^{the Oyl} either by it self, or together with ^{of Sweet} Canary warmed. If it be desired ^{Almonds.} that this go further, and excite a Vomiting, nothing more is needfull than that the Patient drink Sack-Whey, warm, a slight Decoction of some dry'd Herb, not ungratefull, or ill tasted, *e. gr.* of Sage, of Ground-Ivy, or of Marsh-Mallows: and urge the Rise of it again with a Feather.

Of
Tartarus
Emeticus.

ther. When the Case has been such as to render it needfull, and I have judged it proper, in other Fevers, I have to the Ipecacuanha, added from One to four Grains of Tartarus Emeticus; allways with good Success. Ipecacuanha is a Medicine of a very mild, and indeed slight Operation. It sometimes rouses Matter without Casting it effectually out; which commonly excites no small Disorders. As has been intimated above, 'tis ever much better, safer, and easier, to the Patient, as well as more beneficial, that the Medicine work briskly, and freely, if under good Guard, and a prudent Regulation. Nor does any Medicine do that more surely than Tartarus Emeticus: or, joyned with Ipecacuanha, more kindly aid it, and supply its Defects. What succeeds so happily in other Fevers, succeeds as happily in the Small-Pox; so far as I have made Tryal, and where there has happened to be a just Claim for it. It will sometimes so fall out that the Vomit, in Conclusion, will work downwards, and purge; especially

especially if the Medicine be slight, or the Dose little, so as not sufficiently to incite the Stomach, and rouse the Contents of it: or the Operation be not rightly promoted, and closely pursued. This is particularly a not uncommon Effect of Oxymel of Squills. On which Account I am not forward to Use it; unless in Children: or where the Case is gone so far, and the Patient seemingly so near Death, that Lookers on, then ordinarily in a Hurry and Fright, scruple, and are under Apprehensions of a more powerfull Vomit. Being consulted for Mr. *John Bryan*, then about 11 Years of Age, the 14th Day from the Eruption of a most dangerous Fluxed Small-Pox, when all present thought him expiring, I gave this Medicine: and, thô there was joyn'd with it some Cordial Water, as I remember, *Aq. Cinnamonii fortior*, it took immediately a Turn downwards, purging him furiously; which made Way for his Rescue, and happy Recovery. I have known some other like Instances; which I freely and candidly

didly acknowledge to these Gentlemen, that, if they think it favour their Hypothesis, they may make their Advantages of it. But one Thing I must desire them to take Notice of, that, from the Medicine's Steering its Course so readily downwards, 'tis certain that the Way thorough the Guts, in this Case, happen'd to be open, and the Passage free; so that there was little of the morbid Matter turned into the Blood. Of which 'twill be very hard for them to be secure when they give their Purges. What does not much favour their Notion of so very gentle Purgeing, any more than the attempting to curb or restrain the Diarrhæa †, is, that if Vomits turn thus downwards, the more briskly and quick they pass, the better: and the fewer Inconveniencies insue. On which Account, when the Vomits have happened to take that Course, but, by reason of some Incumbrance in the Way, purged very slackly: or where a slight Diarrhæa has come on, I

*The
Use of
Clysters
in the
small-
Pox.*

† Conf. p. 135. *supra*.

have usually ordered a Clyster, to convey speedily forth what was thus sent down into the Guts; ever greatly to the Advantage of the Patient. And, that I may mention that by the by, in other Accidents of this Distemper, where, by reason of an Over-Charge of noxious Matter, stopp'd in the Guts, by Wind, and so Part of it turn'd cross-ways into the Blood, the Symptoms have been urging, tumultuous, and ruffling, I have, to take off those Stops, in order to diminish and draw off some of that Matter, prescribed this Operation with very happy Success. There was, in the Case of Mr. *William Roberts*, in a dangerous fluxed Small-Pox, Instance of this, twice; on the 4th, and again on the 6th Day, from the Eruption; at both which Times he was oppressed, sunk, dispirited: and his Life thought in the utmost Distress, by all; particularly by Mr. *Miller*, Apothecary, a Man of Learning, and a good Judg, whose Kinsman he is, and in whose House he lodged. 'Tis very well worth Regard, and

indeed an Instance of the great Experience and of the right Judgement of *Hippocrates*, that, tho' he will not by any means allow *Purging Medicines* † to be given in *high Fevers*, he directs the free Use of *Clysters*, as often as there may be occasion; observeing, very justly, that this Operation is of *less Danger* than that of *Purging*.

The
Judge-
ment of
Hippo-
crates in
Favour of
Vomiting
in Fevers.

LIII. The same great wise Writer encourages the Practise of Vomiting in Fevers. For the *Colical Pains* that happen ordinaryly in *Summer*, and are generally attended with a Fever, he advises *Vomiting* *: and the Operation to be repeated, if there be Occasion. So, in that Fever that was, in the *Summer Season*, frequently very *vehement*, and common, in *Greece*, he recommends Vomiting ‡. He had indeed a proper Indication for that Administra-

† Οὐκ ἔν ἐ χρὴ τοῖς ἰσχυροῖς τῶν πυρετῶν φάρμακα καθαρτήρια προσφέρειν· ἀλλ' ἂν ἵνα δέν, ὑποκλύζεν χρὴ, ὅπου ἄν τις αὖ βέλει ἀκινδυνότερον γάρ.
Hippocrates. Περὶ φαρμάκων. Sect. 5.

* Περὶ Παιδῶν. Sect. 15.

‡ Ibid. §. 13.

tion from the Vomiting; and from the Descent of Choler, that he observed sometimes to happen in that Case ; which therefore appears to be somewhat allyed to the Cholera. In which Disease *Hippocrates* gave *Hellebore* : and vomited † the Patient. All know that the Cholera happens not without a Fever : and *Hippocrates* elsewhere asserts that the *Leipyric Fevers* *, went not off, without a critical Access of a Cholera. In the *Causus* ||, a highly malignant Fever, in which the Tongue was rough, dry, and very black, the Thirst excessive, the Patient comatose, and delirious, he judg'd Vomiting requisite, and Clysters : but permits not to advance nearer Purgeing than to use *Asses Milk boyled*. Nay he has left us the Relation of two Cases of Persons that dyed of Fevers, after Purgeing, who, in his Judgement, had recover'd if they had been

† 'Επιδημ. L. 5. §. 4.

* Κωάκ. Περγ. §. 1.

|| Περί διαίτ. ὀξέων. §. 34.

vomited †. That *Hippocrates* is thus, all along, with me, is not a little to my Satisfaction; not so much on Account of his high Character, and established Authority, as his great Industry, and his so generally Founding what he advances on Observation, his simple and close Reasoning, and his singular Honesty in frankly Declareing the Result of all his Administrations. Nor can it well be thought other than a Paradox that Dr *Freind*, under the Notion of *Commentaries* upon *Hippocrates*, should publish Doctrines so directly contrary to his; even where this truly venerable Sage has Nature apparently vouching for Him.

Vomits
fetch up,
and bring
to Light,
the Causes
of the
Symptoms
in this
last Sta-
dium of
the Small
Pox.

Where-
by they
give Evi-

LIV. I cannot well quitt this Subject without takeing Notice that, in Vomiting, in this, as well as in the first Stadium, the Patient ordinarily brings up Phlegm, very putrid and foul. As also Choler, yellow, green, black: bitter, salt, sour, sharp, hot. This Operation therefore, by thus bringing to Light

† 'Εμδνμ. L. 5. §. 9, 10.

the Principles, which I have assigned as Causes of the Fever, and the other disastrous Symptoms, that sometimes attend this 4th Stadium, gives even ocular Demonstration of the Reality, and Existence of those Principles: and the plainest Evidence that can be required, of the Truth of the Doctrine delivered in these Papers. At the same Time it lays open to us the Source of those Principles: and affords us an incontestable Argument of the Reasonableness of this Operation. But, of this we have yet further Proof from the Suspension and Relaxing of the Symptoms, if not by such Time as the Operation is at an End, in a very short Time after. Nay the Symptoms immediately cease, vanish wholly, and the Patient is rescued, in Case the Body be, before hand, so disposed, and the Operation so regulated, that the Discharge be quick, easy, and free.

LV. Thus may Vomiting be managed where there is a Necessity. But the Body, at this End of the Disease, is in bad Plight to stand any great Shock or Ruffle: or to

dence, even to Sense, of the Truth of this Doctrine.

Further Evidence of it from the Cessation of the Symptoms after Vomiting.

Of the Finishing the Cure: and Re-establishment of the Constitution.

*after the
Small-
Pox.*

abide Blistering, Bleeding, Purgeing, or, indeed Vomiting. So that 'tis fortunate, for the Patient, where Things are adjusted, with due Wisdom, and Foresight, in the Beginning; while the Organs are tolerably free, and the Strength not too far invaded. After the Evacuations, that may be requisite, are then made, the main Business of the Physician is to keep up the Hopes, and Courage, of the Patient: to govern and determin his Passions: to secure his Ease and Quiet: to guard against all Excess of Heat, or Cold: to settle the Diet, the Drinks, and the few Medicines that serve to regulate the Fever: to hold the vicious Matter, in the Stomach, continually in Subjection, and under such Discipline that it descend not on the Habit faster than the Organs can well receive it, dispense it to the Pustules, or cast it forth by Spitting, by the Kidneys, and common Secretory Organs. All, over and above this, ought, if possible, to be kept still, and quiet, in the Stomach, till the Pustules are discharged, the Organs happily disengaged
and

and freed: and, then, finally, by a discreet Government, and a proper Diet, the Frame be somewhat re-established, and a little new Strength acquired.

After which, the Morbid Matter, that hath been all this while quieted and suppressed in the Stomach, or that perhaps happened not to be put into Emotions, rise, and flow forth, should by no means be left lurking there: but effectually discharg'd, and cast out. For, if that be neglected, and the Opportunity lost, there must, and dayly Experience shews us there actually does, follow Evills, and Inconveniencies, very numerous, and great. That Matter is wont to imbarass the Stomach, incommode the Digestion: pollute the Nourishment: foul the Blood: offend and annoy the Organs and Parts, the Brain, the Eyes, the Lungs: furnish a Supply to Boils and other like Eruptions: bring on those called Scorbutic Affections, a Cachexy or Ill-Habit, an Atrophy, or Consumption; one, or other, and with more or less Detriment to the Frame, in Proportion to the De-

This never to be effected without Evacuations. The Use and Benefit of them: and the great Error of Omitting them.

pravation, and to the Quantity, of the vitious Matter left resideing in the Stomach. I know I shall be pardoned for being thus particular, since, thorough Inadvertency, Omission, and want of due Care in this Regard, so many vigorous, firm, and noble Constitutions are impair'd, shattered, and rendred ruinous for ever after. They who have not sufficiently subdued their Passions, and Appetites, who will not abide a regular Discipline longer than they lye under an absolute Necessity, who become impatient and grow weary of all Medicines, casting them off after their present apparent Danger is over, judge but ill for the present, and much worse for their future Security and Happiness. There is indeed somewhat to be said for those, who, in the Course of the Disease, have taken many Medicines before. They may may have Reason to be tired: and to be offended. But 'tis the highest Prudence, and greatly for their Interest, to give up and sacrifice a little present Indulgence and Gratification of themselves, for so great

a future Good and Happiness. Excepting the not Calling in proper Assistance, and Advice, in the Beginning, till the Distemper be got o' Head, and the Organs and Parts too far invaded and hurt to be ever after capable of Rescue and Help, Men err not any Way so generally, and so fatally, as by this Neglect, in the Conclusion of a Disease. Whereas, this Opportunity being laid hold of, and Things at this Juncture rightly administred, a sure Foundation is laid of future Health, Strength, and Firmness. By this Means even the Errors and Failures of the Constitution, before the Access of the Small-Pox, are commonly rectified. They have not rightly reflected on Things, and are far from being thoroughly versed in the Exigencies and Affairs of human Nature, who, from various Intimations that dayly occur in Practise, have not learned that the vitious Matter, which, stirred, brings out the Small-Pox, is so far from being recent, that it must have layn long quiet within : and much of it is not of later Production and

Date

Date than the Birth of the Patient. Of which, were there no other, we have an Instance in the great and sudden Change, made by the Small-Pox, to the Advantage of the Constitution, where the vitious Cause happens fortunately not to be too great for the Mechanism and Powers of the Body to expell. 'Tis true, under the present Modes of Liveing, and great Excess, this is not so common as was to be wished. So that farther Help, and the Assistance of Physick, is ordinarily requisite : and, by means of this, Constitutions, that, from the very Birth, have been ailing, sickly, and infirm, are, now, by a regular Procedure, and dextrous Removal of the Causes of those Ails, rendred sound, healthy and strong : those that have been heavy, cloudy, and stupid, rendred sprightly, apprehensive, and sensible ; the OEconomy being freed, the Embarrass clear'd off, and all Impediments removed. What is here said of the Small-Pox, holds equally true of all Fevers : and indeed of all other Diseases. If the Method used in the Cure be rational:

tional: and the morbid Principles that had layn long lurking in the Body, and much injured it, be not again pacified, stilled, and suppressed within, or only transferred from One Organ to another, but discreetly cast quite out; the Body thereby acquires an Ease, a Freedom, and Vivacity, with which it must have been ever before wholly unacquainted: and is put into a State of Health, so far preferable to what it formerly enjoyed, as to demonstrate the Disease, however violent, and dangerous, so managed, had proved of great Advantage to the Constitution. Of this there are Instances so numerous as to put the Thing out of all manner of Doubt.

LVI. But the thorough Clearing, and Rescuing the Body, from Matter that is noxious and morbid, is not so easily or so suddenly to be effected as some, who have not fully informed themselves of these Things, may be forward to suppose. Proof has not hitherto been made of the Secretion, and Flinging out of the Blood, thorough the Glandules

*The
Casting
out, and
Freeing
the Body
from all
noxious
Prin-
ciples, a
great and
difficult
Work.*

Glandules of the Intestines, near so great a Quantity of Matter as some presume : nor indeed of any Thing besides so much of a meer Mucilage as serves, when rightly supplied, to lubricate, and to defend them against the Depredations and Injuries of the Bile, which is ordinarily so exuberant in them.

*The Reciproca-
tions be-
twixt the
Blood Vessels and
the Stomach.*

But 'tis certain, as the Stomach is exhausted and empyed, there is, by the Glandules, and the Gastric Vessels, provided there, for this very Purpose, in surprizeingly great Numbers, secreted, and thrown back into it, in Quantity much more than will easily be imagined, vitious Matter, that was originally sent from the Stomach into the Blood*. This is the Cause why 'tis, commonly a Thing so tedious and difficult to clear the Stomach. Of this Reciprocation, betwixt the Blood, and the Stomach, there are Proofs that are, I think, not to be withstood, and I wish this was a proper Place to produce them in. I cannot however forbear giving

* Conf. p. 127. *supra*.

here some Hints, that every ingenious Inquirer may himself easily carry on, and improve. By Means of Juice of Asarum, and other strong Vomits, given ordinarily to Persons mad, and melancholy, and frequently repeated: by the Vomitings at Sea, continueing in some Persons for several Weeks successively: and those of Women during Breeding; are made Discharges of Phlegm, and Choler, commonly in so great Quantity, that the Stomach is not capable of containing a fifth, nay not perhaps a tenth Part, of it, at once. Then Persons mad, and melancholy, are kept to a spare Diet: and those others mention'd that are so sick, and almost continually Vomiting, have not an Appetite, or Inclination to eat; especially so much as to produce any considerable additional Indigestion. Nor could so great Quantities of it be cast up from the Stomach were not the Matter continually supply'd from elsewhere: and the Habit drain'd, and empty'd into that Organ. But there are, in Nature, Accidents that give yet plainer

plainer Evidence of this. Nothing is more common than for the Gout to be struck back into the Stomach: or the Swelling Pain and Inflammation of the Foot to retreat, and thereupon a Weight, Pain, Heat, and sometimes a Sickness, suddenly to come on in the Stomach. 'Tis not unusual for the morbid Cause to return thence down again to the Foot: and perhaps afterwards to ascend up into the Stomach. Like Reciprocations sometimes happen betwixt the Stomach, and Limbs, in Rheumatisms: and in the Dropfy. So likewise Hæmorrhoidal Pains ceasing, the Stomach becomes uneasy: and recovers it self upon the Return of those Pains to the Hæmorrhoids. Boils, Pustules, and other Eruptions, suddenly falling, and becoming less painfull, the Stomach is immediately put into great Disorder: and, this remitting, the Eruptions rise anew, and the Pain attends in them as before. Thus Things happen frequently in Nature; but, when the morbid Matter is thrown, into the Stomach, from the Limbs,
and

and Surface, by the external Application of repellent Medicines, 'tis ever with much greater Injury to the Body. What renders the thus flinging back of peccant Matter, whether by Nature, or Medicine, into the Stomach, the more troublesome, and dangerous, is, that the Tumults in this Organ extend themselves to other Parts: and in particular to those immediately concerned in the Preservation of Life, and Sense, the Heart, the Lungs, and Brain. I shall here only add that we have a plain and unquestionable Proof, of Passage and Conveyance out of the Blood into the Stomach, from Tryals made on Brutes. For, by these, we learn that Vomitive Tinctures, injected into the Veins, even those of the Hind-Leg, and at the greatest Distance from the Stomach, produce a Sicknefs, and Vomiting, as great, and effectual, as if given directly down into the Stomach. How plentifully noxious Principles, depraved Choler, and Phlegm, are sometimes existent in the Blood, passing, or endeavouring to do that,
we

we have but too many Evidences. I shall here take the Liberty to mention only one, in the Case of *William Emmett, Esq;* In a very severe Fit of the Strangury, that he had a few Years ago, his Urine was the most heated, and the Biliose Salts in it the most numerous, that I have ever known. In *August 1716*, after a cruel Fit of an Ague, he began to void Phlegm, by the Urinary Passages, in considerable Quantity. Which continued for four Months: and then, intermitting six, it returned again in *June 1717*. From this Time forward, increaseing dayly, and continueing, with little Intermission, till the Time that I was consulted, which was the Middle of *January* following, he was then come to discharge, in twenty four Hours, above two Quarts of Phlegm, excessive thick, heavy, and tough; a Thing so extraordinary as to be hardly credible: but yet very certain, and Matter of Fact. In this Case, the Blood-Vessels, being charged with Phlegm, and there being not Reception for it back in the Stomach, which was
likewise

likewise overcharged with it, but had not the Power to reject and cast it either up, by reason of a Stop made in the Stomach and Oesophagus by Wind: or down, He being more than usually costive for the Time; Nature took the only remaining Course, and pass'd it, thorow the Blood, off, by the Kidneys, and Wayes of the Urine. It may not be unseasonable here to add that by Means of Oyls, and unctuous Medicines, and by proper Discharges of Phlegm, in very great Quantity, forth of the Stomach, and Guts, his Urine was, in a short Time, reduced to the common and natural State, and pass'd easily and freely: his Constitution was by the same means, restored, and he recovered a perfect Health, and Vigor, which he had not before enjoy'd for near twenty Years. Upon the Whole, 'tis plain that, as the Vicious Contents of the Blood are all first dispens'd into it from the Stomach, so upon a rational kindly and effectual Clearing of that Organ, Room being successively made for the Receiving back again

*The Blood, accu-
mulated,
and Dis-
eases cu-
red, by a
thorow
Discharge
of the Sto-
mach.*

again into it those vitious Contents, the Gastric Vessels throw them in thither. By which means the Blood is gradually depurated: the Constitution rescued: the Body freed from the Causes of Diseases: and the Health finally re-established.

No Disease really extirpated but by Evacuation: and Removal of the Cause.

Nor can there be any other Way that is natural and sure. While there remain hurtfull Principles within, the Patient will be in Danger: under frequent Alarms: and those Principles will assuredly hurt as often as they happen to be excited. That the Propertyes of each Sort of Matter are inseparable from it, is a standing and unalterable Law of Nature: and, whereever any Sort is present, its Propertyes continually attend it. So that while there is Matter, vitious, and unnatural, in the Body, 'tis sure to annoy, or to indanger it, till cast out. Nor is it possible to imagine how the Parts and Organs shou'd ever act freely, and acquit themselves rightly of their Office, till what impedes and incommodes them is removed.

LVII. 'Twere to be wished that they who talk of *Sweetning the Blood*, of *Corroborating and Restoring the Tone of the Nerves*, of *Raising the Animal Spirits*, with a great deal more of the same Sort: as also they who lay so much Stress on those call'd Alterant Medicines, and prescribe such Quantities of them, would well weigh this: and consider what Distempers they really cure by them: whether, at best, they do more than stunn, and appease the Symptoms: and whether those Symptoms, do not, in a little time, recurr: or others, perhaps worse, arise in their stead.

LVIII. 'Tis certain that a great Part of these Medicines, and particularly the whole Tribe of Absorbents, amongst which are those usually called Testaceous Powders, serve, in the great Chronic Cases, for not much more than to amuse. 'Tis true they take up, into them, the Biliose Salts, as well the genuine, as the extraneous. The Action, of as many of these as are so taken up, must be impeded for

Of the
Absorbent: and
Testaceous
Medicines.

the Time. Now, where a few of those Salts have considerable Effects, as in the tender sensible Bodies of Children, these Powders are perhaps capable of Reducing and Entertaining them: and by that means, of Gaining a Truce, and some Respite to the Patient, by their Suspending those Effects. Which being the most considerable in the Stomach, the Capitol, and chief Place of their Residence, in Checking their Action and Emotions there, these Medicines in some Degree shelter that Organ, and restrain their Descent thence on the Habit. By that means they somewhat lessen the Pains, Inquietude, Febrile Affections, and the other Symptoms, that they, being transferred thither, are wont to bring on there. But their most sensible Operation, and what chiefly has recommended them, is their allaying the Tumults and Disorders of those Salts in the Stomach. 'Tis, particularly, on that Account that such Girls, as haveing a fine quick Perception, happen to be annoyed by them, when exuberant there, of meer Instinct, are wont

wont to eat Plaister Chalk, and other Things that have the same Effect with the Testaceous Medicines. Nor is there Reason to allow a frequent and continued Use of these, any more than of those. 'Tis true, Crab's-Eyes, Pearl, and a few others of the better sort of them, may be given, as they imbarrafs, and curb the Insults of those Salts. But, if they be not in due Time cast out again: and, along with them, the Salts that they so captivate, which is the only good End of Giveing them, the whole Administration is not only a mere Delusion, but a Detriment to the Body. This is what all my Inquiries and Accounts concurr in. Nor can that be thought strange, when 'tis considered that, without Evacuations, those Salts, tho' so captivated for the Time, are as much in the Body as ever: and will, sooner, or later, again free and disengage themselves; then producing anew the same Effects that they did before. In grown Persons those Salts are ordinarily in great Number: and superior to the Power of any ordinary

R 3

dinary Dose of the Testaceous, and other absorbent Medicines. In which Case they serve only to clog and incommode the Stomach: impede the Digestion, as they take up some of the Salts that are the Instruments of it: render the Body costive: incrassate and thicken the Fluids, repress the Heat, imbarrafs the Action, hinder the Motion, and Distribution of them. The Effects, set forth, are sufficiently evident in Others: but much the most in those who, having the Chlorosis, or Green-Sickness, to curb and appease the redundant Bile, which, in that Case, is otherwise perpetually Preying upon and Molesting the Stomach, take the greatest Quantity of Things absorbent. Those Parts of these Medicines, that happen to get into the Blood, are apt to make Obstructions, clog and charge the Vessels and Glands, and, with such Phlegm as may happen to attend, furnish Matter for those Concretions that pass ordinarily by the Names of Stones, in them. This cannot, by any means, appear strange to those who know

know that these Medicines constitute finally a sort of Lye †, or rather a Plaister *, in the Body : † *Lixivium.*
and those, who are not aware of * *Gypsum.*
that, have little informed themselves of the Nature of them.

LIX. The Jesuit's Powder is a great Absorbent ; thô, as 'tis withall Stiptick, and a potent Astringent, as will be manifest to those who rightly observe all its Actions and Propertyes, it hath the Effects, recounted of the former Tribe, in a much higher Degree. But, unless in Youth, or where there is great Vigor of Constitution, the Ills that follow upon it, if given in Quantity, and not in due Time cast forth again, are, in Proportion to its higher Powers, numerous, and great. 'Tis true, by means of it, intermitting Fevers may be sometimes repress'd : and the Principles that cause them, stilled. In which Case Lookers on, observing that, will not fail to be pleased. But they will be hardly capable of Framing a right Notion of the Pangs, and Distress, that some Pa-

Of the Peruvian Bark: and occasionally of intermitting Fevers.

tients sustain afterwards ; especially those who have taken much of it. For, by this means, not only the vitious Salts, that, flowing before into the Blood, caused the Fever, the Acceleration of the Pulse, and too intense an Action and Sense in the Parts, are now restrain'd and captivated in the Stomach, where they bring on ordinarily an Uneasyness, a Sense of Harshness, and great Oppression : but so many of the legitimate and natural Salts likewise, that, being thus defrauded of the Principle to which their Heat and Strength is owing, the Parts become chill, languid, and feeble ; those Accidents being doubtless further heightn'd by the Descent of Phlegm upon the Habit ; which this Medicine is not dispos'd ordinarily to hinder. All which rightly consider'd, it cannot be thought strange that Paralytic and others of those call'd Nervine Symptoms, should so frequently follow an over plentiful Administration of this Medicine. In some a Dropsy ensues : in others Affections of the Breast : in others a Deafness, Noise of the Ears, Dizziness,

or

or other Disorders of the Head. The People would not have the general Prejudice, and Aversion, they have, to it, wholly without Cause. The best is, in a right rational Practise there will be seldom Occasion for it: and, when there happens to be any, after it has done its Business, it ought, with the Salts it has taken up, to be carefully turn'd out again. Indeed Nature her self sometimes does this Part: and, of meer Abhorrence of what is so offensive to Her, flings it down in a Looseness, frequently with great Resentment and Præcipation. Where it is thus thrown forth effectually, and withall kindly: or where the Affair is rightly transacted by Art, the Patient cannot fail of Redress, and Benefit. Whereas if the vitious Salts be left only intangled within, unless they happen to be in very small Number, or the Organs and Parts in such Vigor as to cast them off, sooner or later they will disengage themselves, and again act a Part to the Disadvantage of the Patient, in some Way or other. Then, the Medicine being likewise injurious
and

and annoying, the Patient cannot be easy, or safe, till that be flung out too. Nor is this attended with the Disorders and Inconveniences that ordinarily attend the other Method. I am aware it does not well comport with the common Notions: and for Purgeing, 'tis generally disapproved; chiefly because, where this Medicine runs down, in a Looseness, the Ague ordinarily persists, and becomes sometimes more vehement. Which yet is in Truth, an Indication, if not for Purgeing, for some other Evacuation; such a Looseness never happening but where the noxious Matter is in unusually great Quantity in the Stomach. This Organ being, in that Case, molested by the Medicine, the vitious Matter, that is so exuberant, there, rous'd, thin'd, and Part dispatch'd into the Blood, the Symptoms must thereby be needs inhans'd; the more because Wind, clodded Excrements, and Phlegm, abounding usually in the Guts of those subject to this Distemper, interrupt the Passage thro' the Guts, and concur to determine the peccant Matter towards

wards the Blood. So that the Looseness is merely an Accident : and that, in this Case, the Disease becomes more urgent, is owing to those Checks in the Guts, and to the Quantity of the noxious Matter being so great as not only far to exceed the Power of any reasonable Dose of the Bark, but in the Contrasts with it, to overflow, run down, and so hurry faster than before into the Blood. On which Occasion, Oyls, given, facilitate the Descent of that Matter thorow the Guts, incrassate, guard, and serve to keep it off the Frame. A proper Clyster, administer'd at the same Time, by fetching forth the clodded Faeces, Wind, and other Impediments of the Descent, contributes greatly to the same Purpose. With such Precaution for free Passage, after haveing given the Bark plentifully one Day, where this Medicine is thought requisite, a Purge may, ordinarily, be fitly given the next. Nor have I ever once seen the Ague-Fit return upon it. By proceeding afterwards with the Use of Oyls, or the Bark, if that be desired : and, repeating the Purge, as often as there

there is Occasion, both the Bark, and the morbid Principles, may be dispossess'd: and the Constitution rescued, and happily secur'd; a Thing hardly ever to be expected in the other Way. Where the Symptoms shew those Principles to be much vitiated, or in such Number as neither easily to be captivated, and absorb'd by the Bark, nor safely sent down thorow the Gutts by Purgeing, a proper Vomit ought to be given. This dextrously managed, is of mighty Service: nay commonly at once putts a happy End to all the Symptoms; at the same Time that it displays † both the Nature, and the Source, of the Principles that cause them.

*Of the
Bitter
Medi-
cines.*

LX. Bitters are a Sett of Medicines now much in Vogue, but of Operation quite contrary to the foregoing: and yet, which is pretty remarkable, these are, by some, given, in the same Course, with Absorbents. By which the good Effects of both must be frustrated: and perhaps the bad increased. As Bitters sometimes heighten the Ap-

† Conf. p. 89, 228 & 229. *supra*.

petite, they are wont to please and amuse the Patient : as also those who direct them ; if they have not sufficient Insight into Nature, do not see thorow the Amusement, and are not rightly apprized of the Reasons of Things. The Stomach somewhat incited and irritated by them, where it happens not to be overloaded, and has due Strength and Sense, as in younger Persons, throws them forth : and perhaps, along with them, Phlegm, or something else that was before offensive to it. By which Means that Organ is eas'd of so much ; whereby an Appetite is sometimes brought on, and Way made for Reception of Meat in the Stomach. But this is done at the Expence of the whole Frame ; both the Bitters, and the vitious Contents of the Stomach that pass out along with them, being flung ordinaryly into the Blood, and so dispers'd over all the Body. By which Means, indeed the Oppression and Sense of Luggage in the Stomach, and perhaps the Disorders that accrue thence to the Parts
above,

above, particularly the Head, are lessen'd; but the Blood is heated, foul'd: and Life, and the Constitution, are brought into much greater Danger than before. Besides that the interior finer Parts, disengaging themselves of as much of this vitious Matter as they well can, by all Wayes, fling some of it back into the Stomach †; where it becomes as molesting as before. Which is the Reason that, in this Method, the Patient has ever Need of Remedyes: and never done. In older People, where the Sense of the Stomach is ordinarily less, and the Phlegm and Luggage in it more, Bitters cannot have that seemingly good Effect that they accidentally have in younger. But they have commonly so many more bad ones, that he must be very inobservant that persists in the Administration of them. The Reason of which must needs be plain to those who are capable of Forming a Judgement of the State of Things under these two so different Cir-

† Conf. p. 236. *supra*.

cumstances. 'Tis true Bitter is a main Ingredient of the Bile; on which Account there may happen to be some small Claims of it. But they must be very rare; so many of the Ills, Inconveniencies, and Disorders of the Animal OEconomy, arising from the Redundance of the Bile.

LXI. Of Salts, the Urinous, and Ammoniac, are the best suited to those that are naturally in the Body. Tho' they, being likewise an Ingredient of the Bile, when this proves to be too exuberant, are very noxious and injurious. But the other Salts, Tartar, Sal Prunellæ, the Vitriolic Salts, and particularly those in the ordinary Preparations of Steel, are much more so: and do Mischief without End or Measure; especially in those Bodies that have Phlegm, and other peccant Matter, in such Quantity, as to be superior to the Action of these Salts. 'Tis true, where that Matter happens to be less, as in Children, some Women, Men of the finer and more delicate Constitutions, and such who cannot bear much

Concerning
the Salts
used in
Physick.
Also of
Steel.

much of it, these Salts may do Something that may please; which yet were much better, more easily, and naturally done another Way: as also, indeed, more safely, and without any of the ill Consequences that ordinarily attend the Salts. They, who give these Salts, do it upon a Notion that they attenuate: and open Obstructions. But this, like other superficial Speculations, serves only to mislead, and render them pertinacious in the wrong. These Salts do indeed contribute to the Dissolution of the Matter contained in the Stomach. But, being unnatural, in greater Number, and of more Power, than the ordinary Salts there, they do it with that Bustle, Insult, and Annoyance of the Stomach, that this Organ, in its own Defence, casts the Salts, so annoying it, along with that Matter, thence, before it be sufficiently dissolved, in great Hurry, into the Lacteals, the Capillary Blood-Vessels, and Glandules, of the Kidneys, the Liver, and the other Viscera; whereby the old Obstructions, instead of being opened,
are

are confirmed, increased, and new ones form'd. Then there is a Flush made into the Blood: a febrile Commotion, or other great Disturbance, excited there, and a Confusion, in the Fluids of the Body, too great, and in Wayes too numerous, for me to set forth in this Place. Nor would this Practise be ever born, were there not Delusion in it: and something happening that gives the Patient some little imaginary Satisfaction, for the Time. For, the Load in the Stomach, the Cause of Oppression, of Faintness, of Clouds, and Disorders of the Head, being stirred, and wrought upon, by the Salts, lightned, and some of it cast on other Parts, tho' there it be much more incommodious to the Powers of the Body, dangerous to Life, and farther out of the Reach and Way of Medicines, yet 'tis, for the present perhaps, less perceived: and those first Symptoms, of course, relax, and abate, for a while; which is what the Patient, seeing Nothing forward, and not knowing what is to ensue, will be apt enough to be pleased with.

But they, who are capable of penetrating farther, and possessed of a Tenor of Mind that a Man of Integrity ought, will regard the Future as well as the Present: and rather study faithfully to serve, than merely thus to please. For those slight airy Hopes soon vanish; but the Ills, that follow, hang long, heavy, and hard. So much of the vitious Matter as is, by these Medicines, flushed into the Blood, and happens not to get forth by the ordinary Emunctories, is thrown and impacted into the Vessels, or some Limb: or, perhaps the Brain, the Lungs, or some other Bowel; there to lye till the Texture of it be vitiated: and, this finally failing to act its Part in the OEconomy, the Whole is brought into Ruine. Unless in Youth, or where the Bowel happens to have Vigor sufficient to sling at least some Part of that Matter off again. In which Case 'tis ordinarily taken up into the Mass of Blood: and, except what happens to escape by the Kidneys, is discharged, by the Gastric Vessels and Glandules, back again
into

into the Stomach †; where it will not only play its former Game, and act over the old Part anew: but, joyned by the Indigestion, which has since happened, no Care being taken, in this Method, to prevent that, 'twill become more unruly and troublesome than ever. Considering this, the Obstructions, and other Injuries done to the Frame, they who shall attempt the Cure, for there will be new Occasion, and probably greater than ever, afterwards, will have on their Hands a Task, vastly more difficult and heavy, than they possibly could, had the Patient stood to the Courtesy of the Distemper, and taken Nothing at all.

LXII. Those of *Bath*, and the common Mineral Waters, where the vitious Matter in the Stomach happens to be in little Quantity, may be superior to it: and, tho' they sluice it, by Degrees, into the Blood, they may carry thence out again so much of it, along with them, as to do little Hurt,

Of Medicinal Waters.

† Conf. p. 236. *supra*.

and perhaps some Good. But, where that Matter is in Quantity so great that the Organs and Vessels cannot, as 'tis from Time to Time cast into them, well receive, and dismiss it forth, the Good must needs diminish, and the Hurt increase, in Proportion. The Reason of which will be so evident, to those that understand the Structure and Mechanism of the Body, or attend but to so much of it as has been occasionally set forth in these Papers, as to need no Explaining here: and they who go to *Bath*, and *Tunbridge*, Drenching themselves with Waters, so freely as some are wont, whatever their Philosophy may be, their Courage must be allowed very great. They venture their Persons, and Health, with much Frankness; especially if their Bodies happen not to be in Condition: or there be not due Way for the free Passage of those Waters.

Of Medicines out of the Vegetable Kingdom. LXIII. Many of the Vegetable Bodies in common Use as Alterants: and the Juices, Waters, Salts, and other Preparations of them, are

are ungratefull to the Stomach †, disturb and incommode the Digestion.

LXIV. The Animal Substances, ^{Of those} and the Preparations of them, if ^{out of the} discreetly chosen, and rightly ad- ^{Animal} ministr'd, are somewhat more suit- ^{King-} able, natural, and amicable: but ^{dom.} none of them, that I know of, of very considerable and extensive Use.

LXV. But Minerals, Metalls, and ^{Of M.} all Native Fossils whatever, are ^{nerals.} wholly unsuitable to the Organs, and all the constituent Parts of them. On which Account it is that they are unnatural: and consequently, if given meerly as Alterants, and to abide in the Body, capable of doing little, besides what is mischievous, dureing their whole Stay there; unless under a very wise Discipline indeed.

LXVI. For, under such Disci- ^{The} pline, several of those call'd Alte- ^{right and} rant Medicines, may be safely used: ^{true Use of} nay and rendred, in some Degree, ^{Alterant} beneficial. But every discreet Pre- ^{Medi-}

† Conf. p. 72, 73. *supra*.

scriber will make Choice of those few that are innocent, amicable, and tractable. For such there certainly are: and these may be made highly serviceable, in Subordination to those that are the Instruments, and carry on the great and principal Work of Evacuation, and Discharge of what is noxious, and ill, out of the Body. Those are indeed, in some Measure, needfull, in the Intervalls of that Work. Those Intervalls are sometimes necessarily long: and that Work is not to be ever hurried on: but performed with Judgement, at such Times as the Organs are disposed, and Nature not ingaged in another Way; of which I have had Occasion to give Instances above, treating of the Small-Pox.

Of those which are commonly judged Cordial: and of the Stomachic. LXVII. The Alterant Medicines, which the most kindly assist in that Work, are, either such as contribute to the Animation and Support of the Body, during the main Administration: or else such as dispose the vitious Principles within the more easily to be acted upon, and thrown forth. To the former Purpose

pose are serviceable, besides proper Wines, and a convenient Diet, those compound Waters, that are gratefull, and perfectly agreeable to the Palate, and Stomach †: and the Vegetable and Animal Volatil Spirits that are so too. To the same End likewise the more simple gratefull warm Bitters, given in little Dose, now and then happen to contribute something. But much more, those Things that consist of Parts that are brisk, active, and subtil; provided they comport rightly with the Stomach †. Such are Rue, Scurvy-Grass, Horse-Radish, Mustard, Onions, Garlic, and Assa foetida

LXVIII. Then, which is the second great Use of Alterant Medicines, these last recited gently and placidly attenuate and raise the Phlegm and other Lumber of the Stomach; rendring it more liable to be wrought upon, to flow, and be cast out by the Evacuant Medicines. But, of all others, Mercurius dulcis, under a discreet Government, is much the most eminent and noble Agent, in this grand Affair, that hath ever hitherto been found out.

*Of the
Attenu-
ant Medi-
cines.*

*Of Ca-
lomel.*

†, †. Conf. p. 72. 73. *supra*.

Of Vegetable
Oyls.

They dispose the
Body to be
soluble :
and so
kindly as-
sist Pur-
ges ; ren-
dering
them safe,
practical,
and suc-
cessfull.

LXIX. Of the great Service and Use of Oyls, their correcting the Errors, and reclaiming the Exorbitances of the Biliose Salts, and their appeaseing of Fevers, Inflammations, and Pains, somewhat hath been offer'd already †.

Another very considerable Property they have, which is to dispose the Body to Solubility. As most of the Ills of Life proceed from Wind, Stag-nations, and Luggage, in the Sto-mach and Guts, Nothing contri-butes more to the kindly Removeal of them than these Oyls. They smear over, and lubricate the Guts : smoothe the Way, and facilitate Pas-sage through them. Then their Manner of Action is very different from that of most Purges. For they do not incite and exasperate the Biliose Matter, or raise it into Fumes, which many of the com-mon Purges do : but, quite con-trary, temper the Acrimony of that Matter, allay and check its Emo-tions, Effervescencies, and Fumes ; which being wont to make Stops, greater than Natural, in the Guts, and so turn the vitious Matter in

† P. 80. *supra*, & *Seqq.*

them

them cross-ways into the Blood, those Stops are hereby removed, and the Contents of the Guts left at Liberty to pass forth; these Oyls, by that means, pursuing the Intention of Nature, and doing what she her self would, were she not impeded by those Obstacles. Besides, whereas Purges usually thin the vitious Matter in the Stomach, and Guts, and so dispose it to pass the Lacteals, † Oyls, as they somewhat incrassate, hinder it from passing those Vessels, and thereby save and preserve the Frame. For which Reasons these are not followed by the Feebleness and Sinkings, any more than by the febrile and other Disorders that the ordinary Purges, and that even such Stools as happen naturally, in some great Distemper, and particularly the Small Pox, are sometimes wont; the Oyls as well defending and sheltering the Stomach and the Guts, which Purges, not rightly guarded, are sure to offend and irritate, as screening and securing the Habit. Nor ought it to be pass'd over, that many Purges, par-

† *Conf. p. 138. supra.*

particularly

particularly the Aloetic, and all that are bitter, as likewise all that are saline, and those that consist of Parts that are penetrant and lusciously sweet, such as Manna, make Addition to, and increase the Bile; both the Muriatic and Saccharine Salts, as well as Bitters, being Ingredients of that Juice. But Oyls, given, happily disappoint and prevent the ill Effects of such Purges, by the very wayes that they frustrate the Insults of the Biliose Salts, when redundant, or depraved: and indeed of all other over-active Principles whatever; even of Poysons; there being no Antidote, known, of Power equal to theirs. Indeed, if given, in Quantity, with, or near them, they elude the Operations of those Vomits, and Purges, that have their Effect by stimulating the Stomach and Guts; such as Vitriol, the Purgeing Salts, and the like. For Oyls protect the Bowels, take up and incorporate with the active Parts of those Medicines, as they do with the Biliose Salts: and, by that means, baffle and defeat their Action. With
Purges

Purges that are more benign, and proper, Oyls agree perfectly well: and may be fitly given at the same Time. Or, which Method is ordinarily preferable, if they be given before, at due Distance, Nothing so certainly predisposes the Stomach and Guts to be easily, safely, and effectually wrought upon. For, by their taking off the Stops, and so disposing what is contain'd in the Stomach and Guts to Motion, and Progression, they withdraw the grand Impediment of a right, kindly, and successfull Evacuation. 'Tis indeed chiefly by the Assistance of Oyls that, in the Course of my Practise, I have, in some Cases, pressing dangerous and great, that have been owing to vitious Matter in Quantity proportionably great, been enabled to make so large Discharges, and, in Consequence thereof, to produce Changes, to the Advantage of the Patient, such as could never have been hoped for from any other Attempts: and this too without any Ruffle, or Discomposure, of Persons, in the most nice Cases, of the most tender Constitutions,

stitutions, and even those who could not bear Purgeing in any other Way. Which I am the more forward to suggest, that those candid ingenuous Gentlemen of the Faculty, who aim, not at Amusements, and Palliateing, but the real Good and Redress of the Sick, and the effectual Cure of Diseases, may turn it to their Service, and to the Promoteing of so truly noble a Purpose. What adds still more to

*Oyls a-
micable to
the Body:
and no
Wayes
harmfull.*

the Recommendation of these Oyls is that they are of a benign and amicable Constitution. Let those, who have little true Knowledge of Nature, or of the Body of Man, fancy what they please, Oyls may, under unskillfull Management, be rendred ungratefull, or unpleasant to the Patient: but can never possibly, in any Case, be themselves really injurious. Which I note on Account of a Charge, very unphilosophical indeed, but very frequent in the Mouths of some Persons, that Oyls relax the Bowels. Whereas, in Reality, they do the quite contrary. For, by their allaying Wind, that would otherwise stretch
relax

relax and injure them, they prevent the Relaxing of the Bowels, the Stomach, Guts, and Vessels. They contribute to the same good End by their softening, liquateing, and promoteing the Descent of hard clodded heavy Fæces. Indeed the

Use of Oleose and Unctuous Medicines is manifestly pointed forth by Nature her self, as the most proper Defense of the Body ; particularly against the Attacks of the Biliose Salts; there being placed, with the highest Wisdom and Care, Fat, in great store, as a Guard, on all the Parts where these Salts are most abounding and frequent. Thus, besides that Fat which is affixed on the Stomach, the Guts, and the Liver, the Omentum, spread over and covering them all, consists intirely of Fat, with the Vessels and Membranes that supply, and contain it. Nor does this so remarkable a Part appear to have any other considerable Use than continually to anoint over, and secure those Parts that carry so great Quantities of these Salts.

A like particular Care is taken to bestow Fat,

Occasionally of the Use of the Fat, for the Security of the Bowels and Parts :

as also for Promoteing of in Nourish-

ment, the in plenty, upon the Mesente-
Distribu- ry, and upon the Kidneys, tho-
tion of the rough which they are continually
Fluids, passing: and, more or less, upon all
and Gland- Parts of the Body; there being
dular Se- none to which these Salts have not
cretion. Access, in larger, or smaller Num-
 ber. Nor do any of them suffer,
 to great Extremity, till these Salts
 have prevailed so far as to consume
 and dissipate the Fat; so that the
 Parts themselves, deprived thus of
 their natural Shelter and Guard,
 are exposed to the immediate Cor-
 rosions and Injuries of the Salts.
 'Tis for this Reason that, in our
 Dissections of the Bodies of Per-
 sons deceased of many of the great
 Diseases, especially the Chronic, we
 find them so strangely emaciated,
 and the Parts, mentioned, so who-
 lely despoiled of their Fat. In-
 deed Nothing is more common than
 that the Omentum, the main Fund
 of the Fat, be reduced to a meer
 Skin: nay frequently perished, dis-
 solved, and quite gone; Life last-
 ing, and the Parts holding out, no
 longer than that Vital Oyl, which
 was the Security of both. Nor
 can

can there be any Thing so likely to restore the Fat, thus impaired, and furnish it forth anew, as Oyls and Unctuous Things; if they come not too late. On which Account probably it is, that *Hippocrates* represents them as *restorative* †. I cannot well forbear takeing this Occasion to mention another very considerable Use of the Fat; which is to assist the Glandules, and Secretory Organs, in the Execution of their Office. This it does by anointing and suppleing of them, rendring them pliable, yielding to the Matter passing them: and so favouring Secretion. In which therefore they fail when the Stock of Fat is exhausted. And, in Opening lean and consumptive Bodyes, we ordinarily find the Glandules of the Mesentery, and other Parts, obstructed, become stuff'd, tumid, and Scirrhus. As this is one Accident by which Death is apparently hurry'd frequently on, so Nothing can contribute more di-

† Κομισιν. *Hippocrat. περί Παθ.*
 Sect. 50.

rectly to the preventing it than Oyls and unctuous Things; which afford a proper and natural Supply of that Fat. In this their Assistance of the Glandules, Secureing of the Passage of the Nourishment thorow the Lacteals, Facilitateing the Distribution of the Fluids, and in their Defending the Parts from the Depredations of the exuberant vitiated Bile, the grand Instrument of Death, we have so many Instances of the high Excellence and Use of these Remedyes.

*Of Mu-
cilages.*

LXX. Nature has likewise made choice of Mucilages for her Aid, and Protection. With these she has lined and smeared over the Biliose Ducts of the Liver, the Insides of the Stomach, Guts, Urinary Passages, and indeed all the Vessels of the Body; but those chiefly in which the Biliose Salts most abound. 'Twas the Observeing of this that led me into the Use of Mucilages, Pulps, and Mucilaginous Substances: and 'tis most certain they contribute something to the imbarassing of the redundant Biliose Salts, as well as secureing the Parts against their Action and Insult. Then they
are

are of the Nature of Nourishment, gratefull, and friendly to the Body; to which, they, who have due Tenderness, and Care for the Preservation and Wellfare of it, will, in the first Place, alwayes have Regard, in the Choice of all Medicines whatever.

LXXI. Where the Biliose Salts ^{Of Absorbents.} wander, stray, elude and escape the Action of the Evacuant Medicines, something may be done towards the preventing that, and the fixeing them, by the Absorbents, of the more innocent and gentle Kinds: or by small Doses of the Jesuit's Bark.

LXXII. Opiates contribute to the ^{Of Opiates.} same End, as they diminish the Sense of the Stomach †, render it less lyable to Irritation, to toss and sling about the vitious Biliose Salts, that are wont to offend that Organ, and indeed the whole Habit, when cast upon it.

LXXIII. Thus may a few of the ^{The Conclusion of this Essay concerning} Alterant Medicines, under a right and intelligent Conduct, be rendred

† Conf. p. 128, 129, 130 *supra*.

in some Degree subservient to that great and necessary Work of Casting forth the Principles and Causes of the various Diseases Errors and Disorders of humane Nature ; so that the Organs, dextrously rescued from what annoyed and incumbered them, may be at Liberty to act to execute and perform each their proper Part and Office, without Imbarrafs or Impediment. But I think 'tis made sufficiently plain that they, who depend mainly upon Alterant Medicines, and use them as Principals, will, to say no worse, not have any great Reason to expect they shall hurry on over fast in the Extirpation and Cure of Diseases.

I N D E X



INDEX

TO THE

DISCOURSE

OF THE

State of Phyfick,

AND OF

DISEASES.

THE Occasion of this Discourse. p. 51.

Of Theories, and Hypotheses. p. 54.

Philosophy of great Service to Physick. Ibid.

The Necessity of Inquireing into the Causes of Diseases. Ibid.

Index.

- The Method observed in this Discourse.* p.64.
- Of the Apparatus, or first Stadium of the Small-Pox. The Symptoms. The Origin, and the Seat of them.* p.65.
- Of the Government of the Passions under Diseases.* p.68.
- Of the Diet : and Drinks proper in the Small-Pox. Also of Cordials.* p.70.
- Of the Medicines.* p.72.
- Of Absorbents.* p.76.
- Of Diaphoretic, and Alexipharmac Medicines.* Ibid.
- Of Camphore.* p.78.
- Of Acids, and Cooling Medicines.* Ibid.
- Of Oyls, and Unctuous Medicines.* p.80.
- Of Vomits : their good Effects and Consequences.* p.83.
- The Constitution of the Matter that is the Cause of the Small-Pox, and of the Symptoms that attend.* p.89.
- The Doctrine of Hippocrates, concerning Fevers, conformable to this.* p.90.
- The 2d Stadium : or Eruption of the Small-Pox.* p.94.
- The 3d Stadium or Maturation.* p.97.
- The 4th Stadium, or Declension of the Small-Pox.* p.100.
- The*

Index.

- The Accidents of this Stadium not accounted for by Dr. Freind. Ibid.*
An Attempt to supply that. p. 102.
Of the Symptoms in this Stadium : their Origin, and Causes. Ibid.
Of the Diarrhæa. p. 103.
Of the Dysentery. p. 105.
Of the Subsultus's, or Twitches, of the Parts : and those call'd Nervine Affections. Ibid.
Of the Suppression of Urine. p. 106.
Of the Strangury. Ibid.
Of the Bloody Urine. p. 107.
Of the Spitting of Blood. p. 108.
The Reasons why the Symptoms, that happen in this, are commonly more urgent and vehement than those in the former Stadia. p. 109.
Why the Small-Pox are so much more dangerous to some than to Others. p. 111.
The Remedies. p. 114.
Of Blisters. Ibid.
These sometimes follow'd by Bloody Urine. p. 116.
Phlebotomy, as also Camphore with Acids, used in that Case, constantly fatal. Ibid.
Of Letting of Blood. p. 125.

Index.

- Occasionaly of the Dropsy : and of the Asthma.* p.126.
Of Opiate Medicines. p.128.
Of Evacuations. p.130.
Purgeing in this Stadium proposed by Dr. Freind Ibid.
The Diarrhæa, which sometimes happens, urged as an Indication of Nature for that ; but wrongly ; it being only simply an Indication of Load. p.131.
The Turning this downwards, by Purgeing dangerous Ibid.
Nature is not ever to be imitated. Ibid.
Instances, in her Casting vitious Matter on a Part : p.132.
and in Hemorrhages. Ibid.
Pblebotomy, on this Occasion, censured. p.133.
A Diarrhæa, in the Small-Pox, only accidental. p.134.
The Curbing of it dangerous. p.135.
A Diarrhæa in the 4th Stadium, whether more an Indication, for Purgeing, than one in the 1st or 2d. Ibid.
The Tendency of Things upwards, in the Small-Pox, natural, and kindly. p.136.
A

Index.

- A Diarrhæa, or Tendency downwards,*
very hazardous. Ibid.
- Purgeing not in the least countenanced*
by Reason, or the Mechanism of
the Body. p. 137.
- Purgeing increases the Symptoms :*
and particularly the Fever. p. 138.
- Astringents highly improper in the*
Small-Pox. p. 139.
- Of the Origin of the Small-Pox, and*
some other Diseases of these later
Ages; with the Causes of them. p. 141.
- Purgeing, in Fevers, contrary to the*
Judgement of Hippocrates. p. 142.
- Of the Purges made choice of by Dr.*
Freind and the rest. p. 145.
- Of the Doses of them : and of gentle*
Purgeing. p. 146.
- Of the Forms of the Purges used by*
these Gentlemen. Ibid.
- Occasionaly of Consultations of Phy-*
sicians. p. 150.
- An Inquiry into the Success of the*
Purges used in the Cases related
by Dr. Freind and the rest. p. 151.
- Reasons arising thence for the Reject-*
ing the Method. p. 152.
- Of the first Case related by Dr. Freind.*
Ibid.
- Of Browne's Case.* p. 56.
[Dr.
- T 4

Index.

Dr. Freind's clear, and full, but the other Accounts perplexed and defective. p.158.

A strange Case, in which there were three successive Crops of the Small-Pox. p.159.

A Case attended with a Mortification. p.171.

Had their Method been really successful, that no Proof of the Goodness of it; their Instances being chiefly of Children, who run not near so much Risque from the Small-Pox as Men in Age p.181.

A Diarrhœa, and consequently Purging, not so dangerous to Children as to Men grown. p.182.

Of Women. p.182.

This Method pursued only in the cooler and more favourable Seasons. p.184.

The high Opinion that these Gentlemen have entertained of their own Method. p.185.

They have not given the least Hint but that all were cured who were treated in that Method. p.188.

Though

Index.

Though there be no Reason to believe it attended with such Success. Ibid.

Of the late frequent Miscarriages in the Cure of the Small-Pox. p. 189.

The Increase of Diseases in London, p. 192.

The Causes of this. p. 194.

1. *Error in Diet, and the Conduct of Life.* Ibid.

2. *Error in the Administration of Medicines.* p. 201.

The Stomach the Source of the noxious Principles that cause the Fever, and the other ill Symptoms, in the 4th Stadium of the Small-Pox. p. 209.

So that Vomiting is indicated: and more proper than Purgeing. p. 211.

Of the Management of Vomits. p. 212.

The Vomitive Medicines of Principal Use. p. 220.

Of Ipecacuanha. Ibid.

Of Oxymel of Squills. Ibid.

Occasionally of Oyl of Sweet Almonds. p. 221.

Of Tartarus Emeticus. p. 222.

The Use of Clysters in the Small-Pox. p. 224.

The

Index.

*The Judgement of Hippocrates in
Favour of Vomiting in Fevers.*

p.226.

*Vomits fetch up, and bring to Light,
the Causes of the Symptoms in this
last Stadium of the Small-Pox.*

*Whereby they give Evidence, even to
Sense, of the Truth of this Doc-
trine.*

Ibid.

*Further Evidence of it from the Ces-
sation of the Symptoms after Vo-
miting.*

p.229.

*Of the Finishing the Cure : and Re-
establishment of the Constitution,
after the Small-Pox.*

Ibid.

*This never to be effected without E-
vacuations.*

p.231.

*The Use, and Benefit of them : and
the great Error of Omitting them.*

Ibid.

*The Casting out, and Freeing the
Body, from all noxious Principles,
a great and difficult Work.*

p.235.

*The Reciprocations betwixt the Blood-
Vessels and the Stomach.*

p.236.

*The Blood depurated, and Diseases
cured, by a thorough Discharge of
the Stomach.*

p.241.

*No Disease really extirpated but by
Evacuation, and Removal of the
Cause.*

p.242.

Of

Index.

- Of Alterant Medicines.* p.243.
Of the Absorbent, and Testaceous Medicines. Ibid.
Of the Peruvian Bark : and occasionally of intermitting Fevers. p.247.
Of the Bitter Medicines. p.252.
Concerning the Salts used in Physick. Also of Steel. p.255.
Of Medical Waters p.259.
Of Medicines out of the Vegetable Kingdom. p.260.
Of those out of the Animal Kingdom. p.261.
Of Minerals. Ibid.
The right and true Use of Alterant Medicines. Ibid.
Of those which are commonly judged Cordial: and of the Stomachic. p.262.
Of the Attenuant Medicines. p.263.
Of Calomel. Ibid.
Of Vegetable Oyls. p.264.
They dispose the Body to be soluble : and so kindly assist Purges ; rendering them safe, practical, and successfull. Ibid.
Oyls amicable to the Body : and no wayes hurtfull. p.268.
Occasionally of the Use of the Fat, for the Security of the Bowels and Parts : p.269.

Index.

<i>as also for Promoteing of Nourishment, the Distribution of the Fluids, and Glandular Secretion.</i>	p.269.
<i>Of Mucilages.</i>	p.272.
<i>Of Absorbents.</i>	p.273.
<i>Of Opiates.</i>	Ibid.
<i>The Conclusion of this Essay concerning Alterant Medicines.</i>	Ibid.



BOOKS wrote by the Author :
and published by R. Wilkin, at
the King's Head in St. Paul's
Church-yard.

1. **A**N Essay toward a Natural History of the Earth, and Terrestrial Bodies, especially Minerals : as also of the Sea, Rivers, and Springs, With an Account of the Universal Deluge : and of the Effects that it had upon the Earth, 8vo. 1702.

2. Brief Instructions for makeing Observations in all Parts of the World : as also for Collecting, Preserving, and Sending over Natural Things. Being an Attempt to settle an Universal Correspondence, for the Advancement of Knowledge, both Natural, and Civil. 4to. 1696.

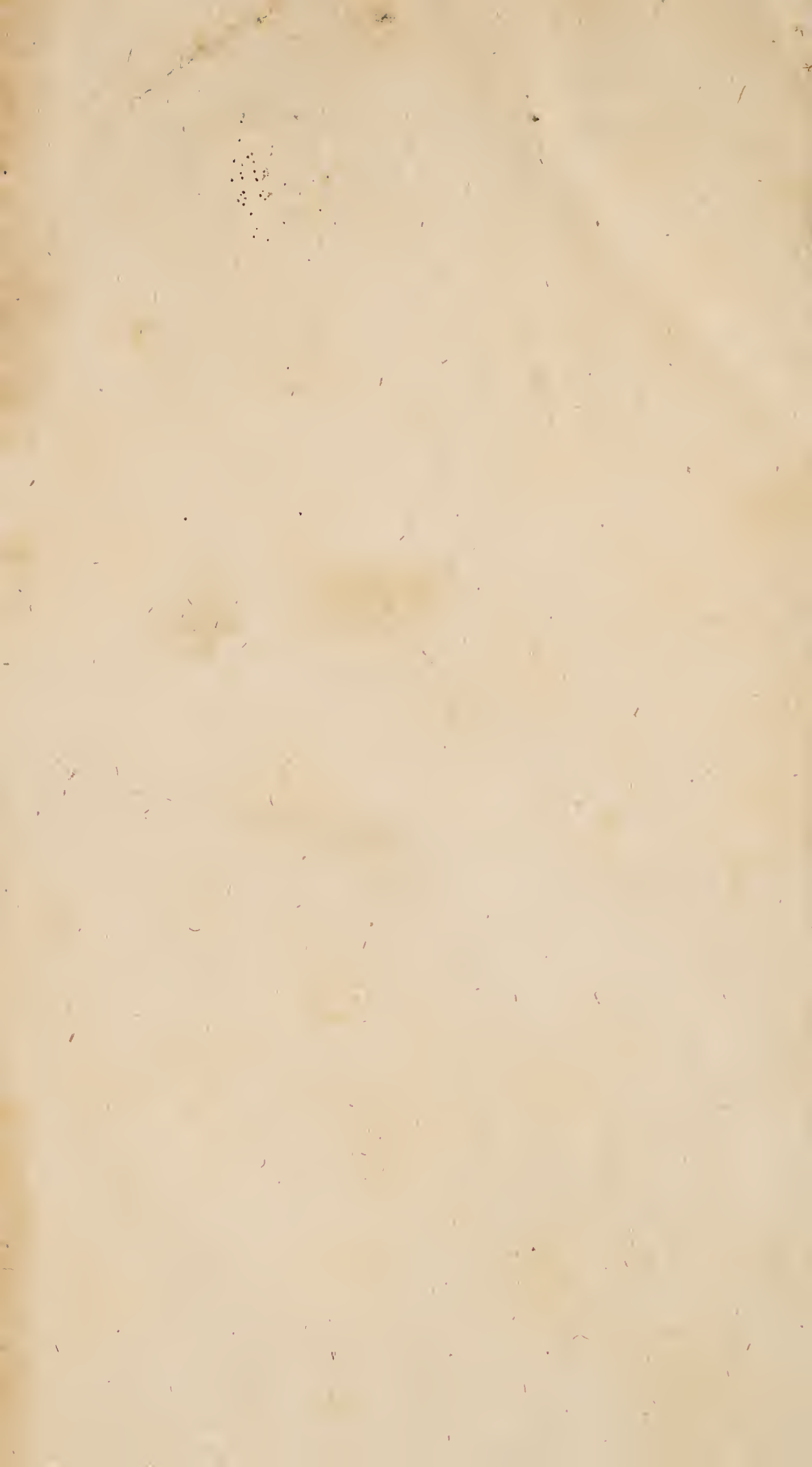
3. An Account of some *Roman* Urns, and other Antiquities, lately digg'd up near *Bishops-gate*. With brief Reflections upon the Antient and Present State of *London*, 8vo. 1713.

4. *Naturalis Historia Telluris illustrata & aucta. Unà cum ejusdem Defensione ; præsertim contra nuperas Objectiones D.El. Camerarii Med.Prof. Tubingensis. Accedit Methodica, & ad ipsam Naturæ Normam instituta, Fossilium in Classes Distributio.* 8vo. 1714.

5. Some

5. Some Thoughts and Experiments
concerning Vegetation. Read in a Lec-
ture before the Royal Society: and
afterwards printed by Command of the
said Society. *Philos. Transact.* Vol. 21.
No. 253.





A
6.1 Gen

